DOCUMENT RESUME

ED 482 524 CE 085 597

AUTHOR	Koukel, Sonja D.
TITLE	Institutional Maintenance Management and Services. Student Activity Book [and] Reference Book.
INSTITUTION	Texas Tech Univ., Lubbock. Curriculum Center for Family and Consumer Sciences.
PUB DATE	2001-09-00
NOTE	514p.; Reference Book was dated August 2001; Lora Ann Neill wrote an earlier version.
AVAILABLE FROM	Texas Tech University, The Curriculum Center for Family and Consumer Sciences, Box 41161 (15th and Akron, Human Sciences 02), Lubbock, Texas 79409-1161 (No. 1388 (Activity Book) $20; No. 1387 (Reference Book) $28). Tel: 806-742-3029; Fax: 806-742-3034; Web site: http:// www.hs.ttu.edu/ccfcs/.
PUB TYPE	Guides - Classroom - Learner (051) -- Guides - Classroom - Teacher (052)
EDRS PRICE	EDRS Price MF02 Plus Postage. PC Not Available from EDRS
DESCRIPTORS	*Building Operation; Buildings; Career Development; *Cleaning; Custodian Training; Facilities Management; *Housekeepers; *Instructional Materials; Job Skills; *Laundry Drycleaning Occupations; *Maintenance; Occupational Home Economics; Occupational Safety and Health; Secondary Education; Service Occupations; Service Workers; State Curriculum Guides; Teaching Guides; Teaching Methods; Trade and Industrial Education
IDENTIFIERS	*Texas; Texas Essential Knowledge and Skills

ABSTRACT

These publications are two of three that comprise a course that provides occupationally specific training designed to develop knowledge and skills for employment in the area of institutional maintenance management and services. The reference book is a student text that provides information needed by employees in the institutional maintenance industry. Each chapter contains a chapter focus (the Texas Essential Knowledge and Skills standards addressed in that chapter), chapter vocabulary list, "essential questions" boxes, and chapter highlights. Topics of the 18 chapters include careers; self-employment; job success; client relationships; communication skills; organizational goals, procedures, and policies; safety; sanitation; housekeeping equipment and supplies; floor care; above-floor care; planning maintenance tasks; time management and work simplification; disinfection techniques; laundry procedures and equipment; and proper care and handling of linens. There are a list of 8 references and 18 web sites, and an index. The student activity book contains paper-and-pencil activities that reinforce essential information presented in each chapter of the reference book. (YLB)

Reproductions supplied by EDRS are the best that can be made
from the original document.

ED 482 524

INSTITUTIONAL MAINTENANCE MANAGEMENT AND SERVICES

STUDENT ACTIVITY BOOK

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
☑ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE, AND IN ELECTRONIC MEDIA FOR ERIC COLLECTION SUBSCRIBERS ONLY, HAS BEEN GRANTED BY
M. Wragg
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
2A

BEST COPY AVAILABLE

FAMILY AND CONSUMER SCIENCES EDUCATION • TEXAS EDUCATION AGENCY • AUSTIN, TEXAS

CE085597

Institutional Maintenance Management and Services

Student Activity Book

Developed and disseminated by:
The Curriculum Center for Family and Consumer Sciences
Texas Tech University
Box 41161
Lubbock, Texas 79409-1161

September, 2001

Acknowledgments

The *Institutional Maintenance Management and Services Student Activity Book* was prepared by the staff of The Curriculum Center for Family and Consumer Sciences. Development was funded by The Curriculum Center for Family and Consumer Sciences at Texas Tech University.

The Staff of The Curriculum Center for Family and Consumer Sciences:

Marilyn Wragg
Director

Debbie Mumme, PhD
Curriculum Project Coordinator

Tracy Givens
Information Specialist/Editor

Becky Martinez
Editorial Assistant

Martha Kirk
Associate Director

Bridget Thomas
Information Specialist/Editor

Sonja D. Koukel
Research Associate

****

Sonja D. Koukel served as staff writer for this publication.

****

The Staff of the Texas Education Agency Family and Consumer Sciences Education Unit:

Gay Nell McGinnis
Program Director

Sharon Pierce
Program Specialist

Cindy Gruner
Program Specialist

Diane Salazar
Program Specialist

Preface

Institutional maintenance is a specialized field that includes the housekeeping, custodial, and laundry services found in many settings—from hospitals and private businesses to hotels and cruise ships. According to the U.S. Department of Labor, the institutional maintenance field will continue to be one of the fastest-growing segments of the economy for the next decade. Employment demand is expected to increase by more than 559,000 during the years 1994–2005. Employment opportunities within this field are available at a variety of levels ranging from beginning jobs that are open to the inexperienced, to high-level professional and management positions that require extensive experience and training.

Publications in the *Institutional Maintenance Management and Services* series provide information about various segments of institutional maintenance and management; some employment situations will fit the descriptions provided more closely than others. Therefore, hands-on experience and use of other resource materials are important components of the total training experiences needed by students interested in pursuing career opportunities in institutional maintenance and management.

This Student Activity Book complements the other documents in the *Institutional Maintenance Management and Services* set of materials. The instructional materials designed for the institutional maintenance management area include the following three components:

- The *Reference Book* provides information needed by employees in the institutional maintenance occupational areas. Each chapter begins with a "Chapter Focus" (the Texas Essential Knowledge and Skills addressed in that chapter) and a "Chapter Vocabulary." Terms listed as vocabulary may be located quickly by using the index. Within the text, italicized, boldfaced vocabulary terms are included with definitions or explanations. Illustrations of equipment and procedures used in the industry today aid in student learning. Throughout the chapter, "Essential Questions" boxes pose important questions to students about the material they have read. At the end of each chapter, the content is summarized in "Chapter Highlights."

- The *Curriculum Guide* provides information needed by teachers. Each chapter consists of a variety of instructional strategies for use in the classroom. Instructional strategies should be selected based on the local instructional arrangement, the level of students' abilities and experience, job situations, and time available. Teaching Aids are included for use in implementing the instructional strategies.

- The *Student Activity Book* provides a variety of pencil-and paper activities designed to reinforce the concepts presented in the Reference Book. Activities are designed to correlate with essential information presented in each chapter.

The *Institutional Maintenance Management and Services* documents are part of an occupational education series which focuses on a broad range of employment opportunities. Each title in the series addresses one occupational training area. The materials may be used for one or two years of instruction. Curriculum materials for the other occupational areas in family and consumer sciences are available from The Curriculum Center for Family and Consumer Sciences, Texas Tech University, Box 41161, Lubbock, Texas, 79409-1161.

Chapter 1

Introduction to Institutional Maintenance Management and Services

Chapter Focus

The following Essential Knowledge and Skills are discussed in Chapter 1:

1A Identify routine maintenance practices of a specific business.
1B Explain the organizational structure of a specific business.
1D Determine societal, cultural, and demographic factors influencing institutional maintenance practices and procedures.
1E Describe institutional maintenance practices to accommodate employees or others with special needs.
2B Analyze leadership responsibilities.
2D Explain the role of management in compliance with local, state, and federal laws and policies.
7C Describe the impact of technology on equipment, supplies, and procedures utilized in the industry.
11A Determine preparation requirements for various levels of employment in a variety of institutional maintenance management and services careers.
11B Analyze the future employment outlook in the institutional maintenance management and services industry.
11F Determine continuing education opportunities that enhance career advancement and promote lifelong learning.
11H Analyze economic, cultural, and societal influences on the industry.

Introduction

Institutional maintenance is a specialized field that includes the housekeeping, custodial, and laundry services found in hospitals and health care facilities, day care centers, industrial plants, and private and public institutions. According to the U.S. Department of Labor, the institutional maintenance field will be one of the fastest-growing segments of the economy for the next decade. Although the greatest numbers of job openings are projected to be in entry-level positions, institutional maintenance is being recognized as a professional career option.

BEST COPY AVAILABLE

Activity 1-1 • Sentence Completion

Directions

The statements below review the overview of the institutional maintenance field covered in the introduction to Chapter 1. Complete the following sentences by writing the correct responses in the blanks provided.

1. Institutional maintenance is a specialized field that includes the ____________________, ____________________, and ____________________ services found in many facilities.

2. Four examples of facilities that may have an institutional maintenance department are ____________________, ____________________, ____________________ and ____________________.

3. The separate but related department that works to ensure compliance with safety, health, and environmental standards as well as to promote sound work practices is ____________________ ____________________.

4. Four examples of areas covered under environmental services include the following: ____________________, ____________________, ____________________ and ____________________.

5. Institutional maintenance departments are known by many names. Examples include the custodial department, ____________________ ____________________, ____________________ ____________________, ____________________ ____________________, ____________________ ____________________, and maintenance department.

6. Although not all departments are called by the same name, the institutional maintenance department is responsible for maintaining a clean, ____________________, and ____________________ atmosphere in a facility or institution.

7. Terms used to describe institutional maintenance personnel are janitor, ____________________, ____________________, and ____________________ person.

8. The most common titles used in the institutional maintenance field are ____________________ and ____________________.

Activity 1-2 • True/False

Directions

Review the institutional maintenance and housekeeping profession by completing the following activity. Read each statement. If the statement is true, circle the letter **T** to the left of the statement. If the statement is false, circle the letter **F**. In the space provided, rewrite each false statement to make it true.

T F 1. A housekeeping department can add to the revenue of a business.

____

T F 2. The grounds maintenance division can help customers form a good first impression before they enter an establishment.

____

T F 3. Preventive maintenance is fixing furniture and equipment after problems occur.

____

T F 4. A career in the service-producing industry of institutional maintenance requires continuing the study of new developments that impact the field.

____

T F 5. The institutional maintenance field will continue to be one of the fastest-growing segments of the economy for the next decade.

____

T F 6. Service workers are expected to add 3.9 million jobs in the next decade.

____

T F 7. It is projected that from 1998-2008, the greatest number of job openings in the service industry will be in supervisory and management positions.

____

T F 8. Although entry-level positions require little or no experience, a high school diploma improves the chances for advancement.

____

Activity 1-2 • True/False, cont'd.

T F 9. The image of institutional maintenance has changed from that of a task-oriented maid or janitor.

____

T F 10. Institutional maintenance personnel are not required to know the automated systems used by most institutions because those areas are maintained by the engineering staff.

____

T F 11. Knowledge of computer systems and software systems are valuable skills for maintenance department managers and supervisors.

____

T F 12. Institutional maintenance departments practice conservation through recycling programs.

____

T F 13. The housekeeping staff is only responsible for sorting and disposing of paper products.

____

T F 14. Federal agencies, such as the Food and Drug Administration (FDA) and the U.S. Department of Agriculture (USDA), regulate hazardous waste disposal.

____

T F 15. While fun for surfing, the Internet is not a resource used for institutional maintenance department managers.

____

Activity 1-3 • Idea Graph/Essay Question

Directions

Review information about advancement and education in institutional maintenance and housekeeping by completing the idea graph below. Fill in the missing information in each of the boxes.

A. Management positions involve these skills

1.
2.
3.

B. Training for Executive Housekeepers includes these areas:

1.
2.
3.
4.

C. Environmental Services staffs these specialists:

1.
2.
3.
4.
5.
6.

D. Environmental Services degree programs may be offered under these titles:

1.
2.
3.

Bonus Question:

What are some reasons that professionals in the housekeeping and institutional maintenance field might be interested in certification programs and continuing education courses?

Activity 1-4 • Short Answer

Directions

Complete the following two activities to review institutional maintenance job titles and job descriptions.

Part I: Fill in the missing information in the chart below. In the left column, write the definition for each job classification. In the right column, list three examples of job titles that fall within each classification.

Definitions of Job Classifications	Examples of Jobs
1. Management:	• • •
2. Supervision:	• • •
3. Entry-level	• • •

Part II: Respond to the following items by writing your answers in the spaces provided.

1. Define job description.

2. Give some examples of types of information provided by job descriptions.

3. Explain the main function of job descriptions.

4. Provide examples of ways in which job descriptions can be used by institutional maintenance management.

5. Explain the purpose behind passage of the 1990 Americans with Disabilities Act.

Activity 1-5 • Scenario

Directions

To review the job description for an executive housekeeper, read the following scenario. Then answer each the related questions in the spaces provided.

Scenario: Esther has recently assumed the position of Executive Housekeeper for the City Plaza Suites hotel. She knows she has much to learn in the new position, and she often refers to the copy of the job description that was given to her by the Personnel Department the day she was hired.

Note: Refer to the Executive Housekeeper Job Description on pages 10-11 in the *Institutional Maintenance Management and Services Reference Book* to help Esther answer the following questions.

1. What departments and areas are under Esther's direction and control?

2. To whom does Esther directly report?

3. As Esther plans her weekly tasks, about what percentage of her time should she plan to spend on administrative tasks?

4. In what ways will Esther work with the personnel department regarding staffing of her department?

5. Why is the Executive Housekeeper expected to develop an inspection program for all public areas and guest rooms?

Chapter 2

Opportunities for Institutional Maintenance Employment

Chapter Focus

The following Essential Knowledge and Skills are discussed in Chapter 2:

1A	Identify routine maintenance practices of a specific business.
1D	Determine societal, cultural, and demographic factors influencing institutional maintenance practices and procedures.
2A	Evaluate management styles.
11A	Determine preparation requirements for various levels of employment in a variety of institutional maintenance management and services careers.
11B	Analyze the future employment outlook in the institutional maintenance management and services industry.
11D	Determine how interests, abilities, personal priorities, and family responsibilities affect career choice.
11E	Compare rewards and demands for various levels of employment in a variety of careers.
11H	Analyze economic, cultural, and societal influences on the industry.
13B	Exhibit management practices facilitating individuals assuming multiple roles.

Introduction

Careers in the field of institutional maintenance are appropriate for individuals who have an interest in performing services that provide for the comfort and convenience of other people. Housekeepers are employed in a variety of work settings including hospitals, motels, schools, country clubs, cruise ships, and churches. Housekeepers may also obtain employment in wholesale and retail stores, shopping malls, manufacturing firms, transportation depots, and entertainment facilities.

Activity 2-1 • Matching/Essay Question

Directions

Although housekeeping procedures are similar, each area in the field of institutional maintenance has different policies and procedures. Therefore, housekeeping duties vary among facilities. Review the aim of the housekeeping department for different types of establishments by completing the following activity. Write the letter of the aim of the housekeeping department in the blank to the left of the type of establishment. Each answer may be used more than once.

Type of Establishment

____ 1. Hospital

____ 2. Women's shelter

____ 3. Nursing home

____ 4. Hotel

____ 5. Correctional institution

Aim of Housekeeping Department

A. To provide quick and efficient cleaning of guest rooms and public areas with little inconvenience to the guests.

B. To operate a thorough, unobtrusive, regular cleaning program including sanitation, disinfection, and sterilization to reduce the spread of illness.

C. To provide a regular cleaning service that fits within a given budget and is sufficient to maintain acceptable standards of cleanliness.

Bonus Questions:
Why do you think the aims of housekeeping departments are different for different types of establishments?

Activity 2-2 • Short Answer

Directions

Respond to the following items to review careers in management. Record your answers in the spaces provided.

1. List five examples of employment in supervisory positions found in the institutional maintenance field.
   1)
   2)
   3)
   4)
   5)

2. List five examples of tasks with which institutional maintenance managers may be involved.
   1)
   2)
   3)
   4)
   5)

3. State three ways that institutional maintenance employees can reach the managerial level.
   1)
   2)
   3)

4. List five personal characteristics that make an individual an excellent candidate for a career in management.
   1)
   2)
   3)
   4)
   5)

5. Explain why it is important for an institutional maintenance manager to become familiar with all four styles of management.

Activity 2-3 • Matching

Directions

Review styles of management by matching management style with descriptive statements. Place the letter of the management style in the blank to the left of the statement. Each answer may be used more than once.

Management Style

A. Autocratic
B. Bureaucratic
C. Democratic
D. Spectator

Descriptive Statement

____ 1. The manager is sometimes thought of as a coach.

____ 2. Employees are perceived as professionals and experts by the manager and by themselves.

____ 3. The manager relies on the rules and goes by the book.

____ 4. Managers are usually not in direct contact with employees but stay in touch through meetings.

____ 5. This style is best used in situations where short-term, high quality production is necessary.

____ 6. This style is also called collaborative style.

____ 7. Employees will respond positively for a short time, but tend to be resentful if this style is always used.

____ 8. Employees respond with team spirit and cooperation.

____ 9. Employees think of the supervisor as a "watchdog" and tend to be less motivated.

____ 10. Employees usually like this style of leadership and stay independent and productive for long periods of time.

Activity 2-4 ● Sentence Completion

Directions

The statements below review institutional maintenance in health care, hospitality services, public and private sector establishments, and educational institutions. Complete the sentences by writing in the correct responses in the blanks provided. (Hint: some blanks will require more than one word to answer.)

1. Hospitals, nursing homes, and blood banks are examples of ____________________ institutions.

2. In a hospital, the housekeeping department is most often called ____________________ ____________________.

3. The cleaning of surfaces and equipment to reduce the number of germs that can cause illnesses is referred to as ____________________.

4. The use of chemicals that kill specific types of germs is called ____________________.

5. The process that destroys all forms of microorganisms is ____________________.

6. Government agencies that provide written guidelines and directives for disinfection and sanitation procedures include the ____ and the ____.

7. The industry that encompasses lodging and food and beverage operations is called ____________________.

8. The success of businesses in the hospitality services industry depends on ____________________.

9. Three areas that are included in the daily cleaning schedule for housekeeping and maintenance personnel in hospitality services include offices, ____________________, ____________________, and ____________________.

10. Growth is predicted in the travel industry because of the growth of the ____________________ generation.

11. Of the expected 10 percent growth in travel in minority groups by the year 2020, the largest overall increase is predicted to be in the ____________________ industry.

12. The component of the hospitality services industry that is not easily replaced by technology is the ____________________ ____________________ component.

Activity 2-4 • Sentence Completion, cont'd.

13. Banks, office buildings, manufacturing plants, retail stores, and sports facilities are examples of ____________________ and ____________________ establishments.

14. Housekeepers and maintenance personnel are employed in educational institutions to maintain a ____________________ and ____________________ environment for students, faculty, and staff.

15. On college and university campuses, the division that is responsible for the health and safety program is ____________________ ____________________.

Activity 2-5 • Short Answer

Directions

To review contract cleaning services, respond to the following items. Record your answers in the spaces provided.

1. Why do many establishments hire contract cleaning services?

2. What are five examples of residential services and five examples of commercial services that may be offered by a contract cleaning service?

Residential	Commercial
A.	A.
B.	B.
C.	C.
D.	D.
E.	E.

3. What are some advantages of working for contract cleaning services?

4. Besides common concerns regarding recycling and hazardous waste disposal, what additional concern is faced by health care facilities?

5. For businesses and health care establishments, what are some advantages for hiring environmental contract services to handle waste management?

Chapter 3

Self-Employment Opportunities in Institutional Maintenance Services

Chapter Focus

The following Essential Knowledge and Skills are discussed in Chapter 3:

1A Identify routine maintenance practices of a specific business.
1C Adhere to company policies and procedures.
1D Determine societal, cultural, and demographic factors influencing institutional maintenance practices and procedures.
2B Analyze leadership responsibilities.
3D Differentiate marketing and public relations plans effective for various types of operations.
7A Develop guidelines for selecting equipment, supplies, and procedures for assigned tasks.
7C Describe the impact of technology on equipment, supplies, and procedures utilized in the industry.
11B Analyze the future employment outlook in the institutional maintenance management and services industry.
11C Describe entrepreneurial opportunities in institutional maintenance management and services.
11D Determine how interests, abilities, personal priorities, and family responsibilities affect career choice.
11E Compare rewards and demands for various levels of employment in a variety of careers.
11G Predict the impact of technological advancements on the institutional maintenance management and services industry.
11H Analyze economic, cultural, and societal influences on the industry.
13B Exhibit management practices facilitating individuals assuming multiple roles.

Introduction

Cleaning service businesses are in high demand. The field of institutional maintenance provides rewarding opportunities for individuals to own residential or business cleaning services. Individuals who desire to own a cleaning business but are in need of assistance might consider purchasing a franchise. Since the purchase of a franchise requires a large amount of capital, the prospective business owner should consider the advantages and disadvantages of ownership.

Activity 3-1 • Matching

Directions

Review chapter vocabulary words by completing the following exercise. Place the letter of each term in the blank to the left of its correct definition. Each letter will be used once or not at all.

Terms

A. entrepreneur
B. bid
C. bond
D. e-Commerce
E. franchise
F. franchisee
G. franchiser
H. liability insurance
I. marketing promotion
J. royalty
K. worker's compensation

Descriptions

____ 1. The electronic sales of goods using distribution systems, such as the Internet.

____ 2. Insurance that covers the cleaning business owner in cases of injury or property damage which result from accidents or carelessness on the part of employees.

____ 3. Insurance that pays for work-related medical expenses for employees, not for the business owner.

____ 4. A person or group to whom a franchise is granted.

____ 5. An offer of a set of price that is charged for services rendered.

____ 6. Often, a percentage of gross sales paid for the life of the franchise contract.

____ 7. An insurance contract that protects customers on the occasion that an employee is caught stealing from them.

____ 8. A right or license granted to an individual or group to market a company's goods or services.

____ 9. An individual who assumes the risk of organizing and operating a business for the purpose of making a profit.

____ 10. An action that purposefully causes interest to be created in a business – usually used to attract customers.

Activity 3-2 • Scenario

Directions

To review factors involved in owning a small business, read the following scenario. Then answer each of the related questions in the spaces provided.

Scenario:
You are director of the institutional maintenance department at the local state university. One day, you receive a phone call from a woman who asks to meet with you to discuss her plans to open a housekeeping service. She introduces herself as Lupe Sanchez and tells you that she has worked as a housekeeper for the past fifteen years but has never owned a business. She tells you that she has a list of questions and concerns with which she hopes you can help. You agree to speak with Ms. Sanchez and set a date for the following week.

On the day of the scheduled meeting, Ms. Sanchez arrives with her list of questions and concerns. As an expert in institutional maintenance, assist Lupe by providing your best response to each item.

1. "In your opinion, what are some of the personal rewards that I may expect to gain in owning a housekeeping service?"
   1)
   2)
   3)
   4)
   5)

2. "Although I have worked as a housekeeper for the past fifteen years, I have never owned a business. What are some professional resources I can contact for assistance?" (List five resources.)
   1)
   2)
   3)
   4)
   5)

3. "I think I want to offer residential cleaning services. What factors should I consider to help make my decision on what type services to offer?" (Provide two suggestions.)
   1)
   2)

4. "Once I determine the types of services that I will offer, how do I set prices?" Explain to Lupe both package price and bids.
   Package price:

   Bids:

5. You explain to Lupe that labor costs account for about 50 percent of all operating expenses. The employee turnover rate is estimated at 200 to 300 percent per year so hiring and keeping good employees is a must. Provide Lupe with three methods she can use to find employees.
   1)
   2)
   3)

6. "I know I will need to provide my own cleaning supplies. How can a reliable cleaning supply company help me?"

7. "What types of insurance might I need to carry?" (List three types and provide brief explanations for each.)
   1)
   2)
   3)

8. "How important will it be for me to invest in marketing the business?" Briefly explain to Lupe the importance and purpose of marketing a cleaning service.

9. "What are some specific marketing methods that may prove successful?" Provide Lupe with three methods of promotion that will help to promote her new business.
   1)
   2)
   3)

10. Statistics indicate that 80 percent of all new businesses fail within three to five years. Explain to Lupe the main reasons that new businesses fail. Suggest to her what she will need as an entrepreneur to ensure success in her business.

Reasons businesses fail:

Ways to ensure success:

Activity 3-3 • Short Answer

Directions

Review factors involved in owning a franchise by responding to the following items. Record your answers in the spaces provided.

1. What are some reasons why starting a small business is considered a large undertaking?

2. What three types of assistance does a franchiser offer a franchisee?
   1)
   2)
   3)

3. What professionals should an individual contact to help make financially sound decisions before purchasing a franchise? Why?

4. List four potential advantages of owning a franchise.
   1)
   2)
   3)
   4)

5. List five potential disadvantages of owning a franchise.
   1)
   2)
   3)
   4)
   5)

Chapter 4

Achieving Job Success

Chapter Focus

The following Essential Knowledge and Skills are discussed in Chapter 4:

10B Demonstrate effective methods to secure, maintain, and terminate employment.
10D Evaluate the relationship of good physical and mental health to job success and achievement.
10E Demonstrate appropriate grooming and appearance for the workplace.
10F Demonstrate appropriate business and personal etiquette in the workplace.
10G Exhibit productive work habits and attitudes.
12B Exhibit ethical practices as defined by the institutional maintenance management and services industry.

Introduction

In order to become successful employees, individuals must possess qualities desired by employers. Failure to keep a job is often due to a lack of desirable personal qualities rather than a lack of job skills. Personal qualities can be developed and improved when individuals make sincere efforts to do so. Through honest self-evaluations, individuals can determine personal strengths and weaknesses. By recognizing personal traits, individuals are provided with opportunities to improve interpersonal qualities that better prepare them for future employment and a productive personal life.

Activity 4-1 • Word Scramble

Directions

Unscramble the words in the following sentences to review Chapter 4 vocabulary words relating to personal traits considered to be important by employers. Write the unscrambled word on the blank to the left of each statement.

__________ 1. In the workplace, a positive DTTTUAIE relates to thinking about the job in a favorable manner.

__________ 2. Individuals can develop FSLE-RTOONCL by maintaining a pleasant disposition and pausing to think before speaking or taking rash actions.

__________ 3. An employee with AEVTIINTII is willing, has the ability to observe tasks that need to be done, and completes jobs without being told to do so.

__________ __________ 4. An important factor in achieving job success is having a good NPRSALEO RCAAEEPANP because first impressions are formed by these.

__________ __________ 5. Listening, speaking, reading, and writing are all types of NCATIINOOMUCM SSLLKI.

__________ 6. When an employee's performance is above the standards set for tasks and when the employee is loyal, considerate, and respectful to supervisors and other coworkers, they are regarded as demonstrating PSSEFMSLAIINOOR.

__________ 7. Maintaining high standards and producing quality work is a sign of TYDABPEEDILNI.

__________ 8. Paying attention to details rather than being careless in one's work habits help in developing CURCCYAA.

__________ 9. The act of working with others to reach a common goal is referred to as ONCREOPTIOA.

__________ 10. Employees who maintain high ethical standards, tell the truth, and handle the employer's possessions with care are showing EHSYNTO.

Activity 4-2 • Matching

Directions

Review characteristics of personal qualities by completing the following exercise. Place the letter of each personal quality in the blank to the left of its correct characteristics. Each letter will be used once only.

Personal Qualities

A. accuracy
B. cooperation
C. communication skills
D. dependability
E. honesty
F. initiative
G. personal appearance
H. positive attitude
I. professionalism
J. self-control

Characteristics

____ 1. Involves speaking loudly enough to be heard and using a pleasant tone of voice

____ 2. An employee with this characteristic has the ability to think and act without being prompted

____ 3. Involves being trustworthy, fair, and sincere

____ 4. Showing consistency in following through with tasks and responsibilities

____ 5. Employees are likely to carry out job responsibitlies effectively and create a pleasurable work environment

____ 6. Continuing education through classes, long-distance learning, or self-study is one way of demonstrating this

____ 7. Involves keeping emotions reasonably under restraint

____ 8. Demonstrated by people whose work is thorough and exact

____ 9. Includes the willingness to listen to other people's views and opinions

____ 10. Individuals who are clean and neatly dressed demonstrate a pride in this

Activity 4-3 • Sentence Completion

Directions

Complete the following items by placing the best response in the blanks provided. Refer to the word list below for possible answers. Each word will be used once only.

Word List

attitude
communication
confidentiality
cooperation
criticism
dependability
ethics
exercise
goals
gossip
health
initiative
manage
nutritional
personal appearance
physical
professionalism
self-control
sleep
time

1. How an individual looks refers to their _______________ _______________.
2. The ability to show consistency in following through with tasks and responsibilities is referred to as _______________.
3. Relationships between coworkers and supervisors can be damaged by _______________.
4. Generally, people who are organized, focused, and in control of their lives have established _______________.
5. People who find it difficult to concentrate and who make careless errors might not be getting enough _______________.
6. The most common item employees steal from their employers is _______________.
7. The process by which ideas, feelings, and information are shared is known as _______________.
8. The act of analyzing and judging the merits and faults of something is known as _______________.
9. The body's ability to resist common illnesses is directly related to _______________ health.
10. Enthusiasm and a willingness to learn are ways in which to express a positive _______________.
11. Competent behavior of a high standard or status is referred to as _______________.
12. It is impossible to make or create time but individuals can _______________ themselves to use time effectively.
13. The act of working with others to reach a common goal is referred to as _______________.

14. Some people vent their emotions by engaging in _______________ activities such as jogging, walking, and basketball.

15. The ability to avoid letting emotions dictate a person's actions is known as _______________.

16. Standards of professional conduct are known as _______________.

17. The condition of both body and mind is referred to as _______________.

18. The ability to think and act without being prompted is called _______________.

19. Stress can be relieved through _______________.

20. Not sharing personal information about supervisors, coworkers, or other individuals with someone outside of the situation is a way of practicing _______________.

Activity 4-4 • Writing

Directions

Chapter 4 covers several personal qualities that are desired by employers. These qualities are important for getting, keeping, and succeeding at a job. From the listing below, choose the four traits that you would consider most important. Write an essay explaining why you consider each of the traits as very important. You may use the space provided, a separate sheet of paper, or a word processing program to record your response.

Personal Qualities (choose four)

- accuracy
- communication skills
- cooperation
- dependability
- honesty
- initiative
- personal appearance
- positive attitude
- professionalism
- self-control

Activity 4-5 • Evaluation

Directions

Complete the following activity to identify general qualities needed for employment in any job.

Part I : Honest self-evaluation can help a person determine personal strengths and weaknesses. Place a ✔ by the following qualities you consider personal strengths and an **X** by the qualities you consider personal weaknesses.

____ 1. I check my clothing and general appearance before going to school or work.

____ 2. I make needed repairs to clothing on a regular basis.

____ 3. I stay aware of fashion trends and choose clothing that is fashionable.

____ 4. I select clothing that fits properly.

____ 5. I wash my hair as needed to maintain cleanliness and style my hair daily.

____ 6. I maintain fresh breath and clean teeth by brushing, flossing, and practicing dental hygiene.

____ 7. I keep my hands clean and nails well manicured.

____ 8. I take a bath or shower daily and use a reliable deodorant.

____ 9. I select sensible shoes that are kept clean and in good repair.

____ 10. I maintain proper posture when sitting, standing, and walking.

____ 11. I make a good habit of smiling.

____ 12. I pronounce words correctly and use correct grammar.

____ 13. I speak loud enough to be heard and use a pleasant tone of voice.

____ 14. I am willing to listen to other people's views and opinions.

____ 15. I am prompt about completing assigned tasks.

____ 16. I am willing to tackle ordinary and unusual tasks if necessary.

____ 17. I am dependable and show consistency in my work.

____ 18. I keep my temper under control in stressful situations.

____ 19. I avoid talking about other employees and supervisors.

____ 20. I keep a positive attitude and show enthusiasm and a willingness to learn.

Activity 4-5 • Evaluation, cont'd.

Part II: From the self-evaluation in Part I, select three strengths and three weaknesses. Complete the box below by first listing the strengths and weaknesses in the designated areas. For each strength, briefly describe how this personal quality may benefit you as an employee. For each weakness, outline a plan for improving the weakness.

Strength	**Weakness**
1.	1.
Benefit:	Plan for improving:
2.	2.
Benefit:	Plan for improving:
3.	3.
Benefit:	Plan for improving:

Activity 5-1 • Idea Graph

Directions

Review information about clients from the introduction to Chapter 5 by completing the idea graph below. Fill in the missing information in each of the boxes. In the top box, define the client and list three other names for clients. In each of the remaining boxes, list three examples of clients for the type of institution or facility named.

Client

Define Client: ______________________________
____
____

List three other names by which clients may be called:

1. ______________________________
2. ______________________________
3. ______________________________

Health Care Institutions

Clients may include

1. ______________________________
2. ______________________________
3. ______________________________

Hospitality Services Facilities

Clients may include

1. ______________________________
2. ______________________________
3. ______________________________

Private and Public Sector Establishment

Clients may include

1. ______________________________
2. ______________________________
3. ______________________________

Educational Institutions

Clients may include

1. ______________________________
2. ______________________________
3. ______________________________

Chapter 5

Maintaining Client Relationships

Chapter Focus

The following Essential Knowledge and Skills are discussed in Chapter 5:

- 3A Assess characteristics of positive client relationships.
- 3C Discuss issues of confidentiality, respect, and acceptance that impact client relations.
- 8D Describe appropriate respect and care for personal property of guests and patients.
- 10A Demonstrate effective verbal, nonverbal, written, and electronic communication skills.
- 10E Demonstrate appropriate grooming and appearance for the workplace.
- 10F Demonstrate appropriate business and personal etiquette in the workplace.

Introduction

In many cases, customer service is the number one factor that attracts clients. Therefore, maintaining positive relationships with clients is a vital part of any successful institution, facility, or establishment. Employees in the field of institutional maintenance interact with clients on a daily basis. They are responsible for maintaining good client relationships in order to encourage repeat business.

Activity 5-2 • Creative Writing

Directions

Complete the following activity to explain how an individual's attitude influences relationships with customers. In the space provided, write a poem or rap that reflects your ideas about employee attitude and customer relations. The poem or rap does not need to rhyme.

Attitude

Activity 5-3 • Research

Directions

Review positive personal traits that contribute to positive client relationships by completing the following activity. For each positive personal trait provided below, describe behaviors that display that characteristic.

1. Positive Personal Trait: Friendliness
   Ways to display this trait:

2. Positive Personal Trait: Cheerfulness
   Ways to display this trait:

3. Positive Personal Trait: Courtesy
   Ways to display this trait:

4. Positive Personal Trait: Tact
   Ways to display this Trait:

Activity 5-4 • True/False

Directions

Read the following statements about appropriate grooming and communication. If the statement is true, circle the letter **T** to the left of the statement. If the statement is false, circle the letter **F**. In the space provided, rewrite each false statement to make it true.

T F 1. An appropriate personal appearance is important in making a good impression on clients and presenting a positive image of the institution.

____

T F 2. An employee who is well-groomed and wearing clean, unwrinkled clothing helps to build clients' trust in the overall cleanliness and efficiency of the institution.

____

T F 3. An employee's positive appearance will enhance the image of the institution and promote positive relationships between the employee and clients.

____

T F 4. Communication plays an unimportant role in client relationships.

____

T F 5. To communicate effectively, an individual must be able to listen, speak, read, and write clearly.

____

T F 6. Speaking, or verbal communication, is the most common form of communicating with clients.

____

T F 7. Using correct grammar is an unimportant part of verbal communication.

____

T F 8. Good communication skills are important when dealing with clients face-to-face; however, these skills are less important when using the telephone.

____

Activity 5-4 • True/False, cont'd.

T F 9. Telephone manners have no impact on a company's business.

____

T F 10. Employees should be organized and informed when communicating by telephone.

____

Activity 5-5 • Case Studies

Directions

Complete the following exercise to review your understanding of industry-specific methods of maintaining client relationships. Read the case studies below and write your response in the blanks provided.

Case Study 1

Enrique works in the maintenance department in a nursing home. He is a friendly person with a cheerful disposition. Early one morning, Enrique received instructions to mop and wax a hallway corridor which connected six residents' rooms. While working, Enrique began to sing and whistle loudly. Is Enrique's behavior appropriate? Why?

Case Study 2

Jessica cleans patient rooms in a local hospital. In addition to this job, she runs a small home-based business where she makes and sells dried flower wreaths. In an effort to expand her client base, Jessica began taking examples of her wreaths to the hospital in hopes of getting orders from clients, patients, hospital staff, and visitors. Is Jessica's behavior appropriate? Why?

Case Study 3

Willie works in the institutional maintenance department for a large resort. One evening, he finished cleaning a spill in the hallway on the third floor and was gathering his tools and equipment in preparation of going home for the day. As he was about to leave the area, a resort patron asked Willie if he would fill the guestroom ice bucket. Willie was tired and anxious to be gone. What is the appropriate behavior in this situation? Explain your response.

Case Study 4

Karlie and some of her friends work after school in the institutional department at a local shopping mall food court. Karlie thinks it is a fun job because she and her coworker friends often gather at empty tables and talk. Occasionally, they see friends from school and visit with them. Is this appropriate behavior? Why?

Case Study 5

Chien is the custodial janitor at a local elementary school. During the school day, he cleans classrooms that are not in use. Lately, a student has been showing up during class time to help Chien with the dusting and cleaning of blackboards. Chien enjoys the student and welcomes the help. Is this appropriate behavior on Chien's part? Why or why not?

Activity 5-6 • Short Answer

Directions

To review handling special client situations and managing client complaints, respond to the following items. Record your answer in the space provided.

1. Although unusual circumstances may occur in any institution, where do they occur most frequently?

2. What are examples of special situations encountered by housekeeping staff? List four.

3. Upon knocking and getting no response, a member of the housekeeping and maintenance staff may enter a guestroom and unexpectedly discover a guest in residence. What is the appropriate action for the employee to take when this type of situation occurs?

4. What is the appropriate action for the housekeeping or maintenance employee to take when a client is discovered ill or injured?

5. What types of client behavior might by considered as obnoxious?

6. When approached by an obnoxious client, what is the best action for the housekeeper to take?

7. What action is appropriate for the maintenance employee to take when unauthorized individuals are found on the premises or in the establishment?

8. What is empathy?

9. How can empathy be demonstrated when dealing with customer complaints?

10. When dealing with complaints, what are some suggestions for problem solving and satisfying the client? List four.

Chapter 6

Communication Skills

Chapter Focus

The following Essential Knowledge and Skills are discussed in Chapter 6:

3B Describe how societal and cultural patterns influence communication.
10A Demonstrate effective verbal, nonverbal, written, and electronic communication skills.
10B Demonstrate effective methods to secure, maintain, and terminate employment.
10C Demonstrate positive interpersonal skills including conflict resolution, negotiation, teamwork, and leadership.
10E Demonstrate appropriate grooming and appearance for the workplace.
10F Demonstrate appropriate business and personal etiquette in the workplace.
10G Exhibit productive work habits and attitudes.

Introduction

The ability to communicate ideas and understand others is a basic factor in developing and sustaining human relationships. Through communication, people share ideas, receive information, give or receive advice, relate feelings, and show interest in others. Working with supervisors and coworkers, assisting clients, and supervising and training employees all require good communication skills. Therefore, it is important for employees to possess good communication skills.

Activity 6-1 • Sentence Completion

Directions

The statements below review the overview of communication skills in the introduction to Chapter 6. Complete the following sentences by writing the correct responses in the blanks provided. (Hint: Some answers may require more than one word to complete.)

1. A basic factor in developing and sustaining human relationships is the ability to ____________________.

2. Communication has been defined as the process by which ____________________, ____________________, and ____________________ are shared.

3. In order for communication to occur, a message must be ____________________ and ____________________.

4. The flow of communication between sender and receiver is influenced by various factors including attitude, ____________________, ____________________, ____________________, ____________________, cultural background, and communication skills.

5. Communication occurs ____________________ between people.

6. Communication delivered through words, tone of voice, and the pitch or loudness of voice is ____________________ communication.

7. Facial expressions, appearance, and bodily gestures are types of ____________________ communication.

8. Individuals succeed in communicating only when messages are ____________________ and ____________________ correctly.

9. Possessing good communication skills is ____________________ for employees.

10. Good communication skills help individuals work as ____________________ ____________________.

Activity 6-2 • Matching

Directions

Review verbal communication by completing the following exercise. Place the letter of each term in the blank to the left of the best description. Some letters may be used more than once.

Descriptions

____ 1. This is not the same as hearing

____ 2. The response that shows whether the listener understands the message being sent

____ 3. The type of communication delivered through words, tone of voice, and the pitch or loudness of voice

____ 4. Misunderstanding often occurs in this type of communication

____ 5. Type of listening where individuals refrain from actively engaging in the conversation

____ 6. Communication that occurs when both the speaker and the listener provide feedback

____ 7. This type of communication often requires preparing a speech

____ 8. Type of listening where the listener repeats what the speaker says to make sure the content of the message is clearly understood

____ 9. A communication skill that is often overlooked

____ 10. Used to clarify, restate, or summarize a sender's message

Terms

A. active listening
B. feedback
C. listening
D. one-way communication
E. passive listening
F. public speaking
G. two-way communication
H. verbal communication

Activity 6-3 • Short Answer

Directions

Review verbal and nonverbal communication skills by completing the following activity. Read the following items. Respond to each item by recording your answers in the spaces provided.

1. It is important to master communication skills in order to send clear messages to listeners. List three guidelines that will enhance communication with others when speaking.
   1)
   2)
   3)

2. Techniques for presenting effective speeches are included in the text. List the eight techniques.
   1)
   2)
   3)
   4)
   5)
   6)
   7)
   8)

3. Communication fails when a person does not listen to the message sent. Provide five reasons for not listening.
   1)
   2)
   3)
   4)
   5)

4. Listening can be improved with practice. List five listening skills that individuals should practice.
   1)
   2)
   3)
   4)
   5)

5. Explain why body language is considered more powerful than verbal communication.

6. A person's body language often reveals the feelings behind a message more clearly than the words that are spoken. Complete the box below with types of body language and the meanings. An example is provided for you.

Types of Body Language	Meanings of Body Language
A. shrug shoulders	A. do not know or do not care
B.	B.
C.	C.
D.	D.

7. Provide one example of how a person's actions can send nonverbal messages. (Note: Try to use your own example rather than the one used in the text.)

8. Explain how personal appearance is considered a form of body language.

9. Explain why employees in institutional maintenance and housekeeping services should be aware of cultural differences when communicating with others.

10. Provide one way in which institutional maintenance employees can learn about different cultures.

Activity 6-4 • Writing

Directions

Complete the following exercise to review types of business letters. To complete this exercise you may use the space provided, a separate sheet of paper, or a word processing program.

Part I: Use the following information to draft a request letter. Use a block form.

To: Jerry Rosco, Rosco's Janitorial Supplies; 11 Superclean Highway; Spotless, TX 98909
From: Ms. Henrietta Holmes; Executive Housekeeper; Hospitality Inns; 8910 Highlands Drive; Hoopstown, TX 96101
Date: April 13, 2001

Body of Letter: Please send me information regarding the line of cleaning supplies carried by your company. We have a new hospitality facility which we plan to open in the next six months and we are searching for a reputable company from which to purchase supplies. At this time, we are looking at all types of housekeeping supplies – both chemical and nonchemical. Additionally, it would be appreciated if you could attach a current price list.

Use a complimentary closure at end of letter.

Part II: Use the following information to draft a bad news letter. Use a modified block form.
To: Ms. Henrietta Holmes; Executive Housekeeper; Hospitality Inns; 8910 Highland Drive; Hoopstown, TX 96101
From: Jerry Rosco, Rosco's Janitorial Supplies; 11 Superclean Highway; Spotless, TX 98909
Date: April 21, 2001

Body of letter: Thank you for your inquiry about our company's line of cleaning supplies. We are the largest supplier within the tri-state area and have been in this location since 1956. I deeply regret to inform you that we no longer provide supply services for the Hoopstown, TX area. However, there are several reputable companies within your area. I have taken the liberty of enclosing a listing of companies that we highly recommend. Again, thank you for your interest in our company. We wish you great success in your new venture.

Use a complimentary closure at end of letter.

Activity 6-5 • Idea Graph

Directions

Review information about electronic media by completing the idea graph below. Fill in the missing information in each of the boxes.

Types of Electronic Media

1.
2.
3.
4.
5.
6.

Computers
Definition:

Word processing programs
Example of use in communications:

Desktop publishing program
Example of use in communications:

e-mail
Example of use in communications:

Telephone Systems
Examples of telephone technology:

-
-
-

Telephone features designed for differing types of disabilities

-
-
-

Activity 6-6 • Identification

Directions

Review levels of communication by completing this exercise. Read each item listed below. Identify levels of communication by placing the correct level number in the blank provided to the left of the item.

Levels of Communication

5 = level 5
4 = level 4
3 = level 3
2 = level 2
1 = level 1

____ 1. At this level, there is an honest sharing of feelings and emotions

____ 2. At this level, no opinions or feelings are expressed

____ 3. Complete openness and honesty, referred to as peak communication, exist at this level

____ 4. This level is often referred to as the cliché level since there is no sharing of emotion, and conversation is often based on common expressions

____ 5. This level includes some sharing of ideas. The speaker watches for acceptance or rejections of ideas before continuing the conversation

____ 6. At this level, deepest thoughts and feelings are revealed, and the speaker and listener share reactions and emotions

____ 7. This level involves only a reporting of events or facts

____ 8. This is the weakest level of communication

____ 9. Example: "What can I do to help make you feel more confident?"

____ 10. Example: "Hello. How's it going?" "OK."

Activity 6-7 • True/False

Directions

Review conflict resolution by completing the following activity. Read each statement. If the statement is true, circle the letter **T** to the left of the statement. If the statement is false, circle the letter **F**. In the space provided, rewrite each false statement to make it true.

T F 1. A conflict is a disagreement.

____

T F 2. Conflict is a negative emotion that has no positive value in the workplace.

____

T F 3. People from cultures different from our own still have the same value systems that we do.

____

T F 4. Prejudice is an opinion formed about others before all the facts are known.

____

T F 5. A willingness to learn about other people's experiences can lead to better understanding and improve working relationships.

____

T F 6. New employees can initiate positive work relationships by asking established employees for information or assistance.

____

T F 7. Automated equipment is self-operating machinery that automatically controls or performs some or all processes of production.

____

T F 8. When disagreements arise between employees and management, employees should stay quiet because raising complaints and problems leads to dismissal.

____

T F 9. When communicating with individuals in situations involving conflict, it is important to use you-messages rather than I-messages.

____

T F 10. In using I-messages, individuals accept responsibility for their feelings rather than transferring responsibility to the listener.

____

Chapter 7

Organizations: Goals, Procedures, and Policies

Chapter Focus

The following Essential Knowledge and Skills are discussed in Chapter 7:

2C Identify fiscal management responsibilities.
10B Demonstrate effective methods to secure, maintain, and terminate employment.
10C Demonstrate positive interpersonal skills including conflict resolution, negotiation, teamwork, and leadership.
10E Demonstrate appropriate grooming and appearance for the workplace.
10F Demonstrate appropriate business and personal etiquette in the workplace.
10G Exhibit productive work habits and attitudes.
12A Summarize the rights and responsibilities of employers and employees.
12B Exhibit ethical practices as defined by the institutional maintenance management and services industry.
12C Analyze legal aspects of the institutional maintenance management and services industry.
13B Exhibit management practices facilitating individuals assuming multiple roles.

Introduction

Each business has specific goals, procedures, and policies. In most cases, customer demands for services or products drive the development of company goals. For this reason, most successful companies focus on the customer rather than on the goods or services produced.

All businesses establish certain procedures and policies for employees to follow. Standard operating procedures are written procedures that employees follow when performing tasks that are done on a regular basis. Company policies provide employees with information about the organizational structure of the company, employee work schedules, employee compensation, and company benefits.

Activity 7-1 • Fill-in-Blank

Directions

Review organizational goals and procedures by completing the following exercise. For each item below, write the word(s) in the blank provided that best completes the sentence.

1. The ends toward which organizations direct their efforts and activities are known as ______________.

2. Step-by-step guidelines that help employees perform jobs effectively and ensure the same results each time are ______________.

3. Overall plans that state the goals and operating procedures of an organization and that ensure the smooth operation of the business are called ______________.

4. A broad statement that explains the purpose or direction of a company is a(n) ______________.

5. A business' financial goal or objective is called a(n) ______________.

6. The twelve month block a business uses to plan its finances is referred to as a(n) ______________ ______________.

7. Business costs that are referred to as supply cost accounts are also known as ______________ costs.

8. Written procedures for tasks performed on a regular basis are ______________ ______________ ______________.

9. A document that contains exact directions and instructions as how to perform each step of a particular job is a(n) ______________ ______________.

10. Written statements of conditions that exist when a job is performed satisfactorily and that are written in precise terms so they can be measured are ______________ ______________ ______________.

Activity 7-2 • Short Answer

Directions

Review organizational policies by completing the following activity. Use the spaces provided to record your response.

1. Write a short paragraph explaining the uses of an organizational chart.

2. A. Define ethical behavior.

   B. Provide an example of ethical behavior as practiced by housekeeping and institutional maintenance departments.

3. Provide four types of information presented at employee orientations.
   1)
   2)
   3)
   4)

4. Complete the box below with examples of how probation periods benefit both employers and employees.

Employers	Employees
A.	A.
B.	B.
C.	C.

5. A. Good attendance is an important job requirement. Provide a brief explanation as to why this is true.

   B. Explain why employees should promptly call management when they realize they will be late to work or need to stay out because of illness or emergency.

6. A. Explain why management performs employee evaluations.

   B. Provide five employee characteristics that might be evaluated by management.
      1)
      2)
      3)
      4)
      5)

7. The disciplinary action process involves a series of steps. For each step listed, provide a brief description of the purpose of the disciplinary action.
   1) Verbal warning

   2) Conference

   3) Written notice

8. List the three types of dismissal from which a supervisor may choose.
   1)
   2)
   3)

9. Provide five examples of employee conduct that could result in immediate dismissal.
   1)
   2)
   3)
   4)
   5)

10. A. Explain how resignation differs from dismissal.

    B. Provide three reasons why an employee might resign.
       1)
       2)
       3)

11. Explain why some companies might require employees to wear uniforms.

12. Most businesses consider it unethical for employees to clock in and out for each other. In one or two sentences, explain why you think this is so.

13. Some businesses require employees to wear identification (ID) badges. Provide three examples of how ID badges can be utilized in the workplace.
    1)
    2)
    3)

14. A. Explain the term "grievance."

    B. Before issuing a grievance explain the action an employee should take.

15. A. Define "labor union."

    B. List three areas of negotiations in which a union representative may work with company officials.
        1)
        2)
        3)

Activity 7-3 • Scenario

Directions

To review factors involved in creating work schedules, complete the following exercise by reading the following scenario. Use the space provided to record your response.

You are Manager of Cleaning Operations for a local shopping mall. Part of your job description is to provide work schedules for your employees. Listed below are some work scheduling factors. For each, provide a brief explanation of how it will influence how you design the work schedules.

1. Business hours
2. Regular work week
3. Part-time schedules
4. Shift schedules
5. Rotation schedules

Activity 7-4 • Matching

Directions

Review vocabulary words related to employee compensation by completing the following exercise. Place the letter of each term in the blank to the left of its correct definition. Each letter will be used once only.

Terms

A. bonus
B. compensation
C. FICA
D. gross pay
E. incentive
F. net pay
G. overtime
H. payroll deductions
I. straight salary
J. wage

Definition

____ 1. An extra payment that is given to an employee for excellent work or as a share of business profits

____ 2. Hourly rate of pay for an employee

____ 3. Figured at time and a half or one and one-half times the normal pay rate

____ 4. The amount of the employee check or the amount the employee actually receives on the paycheck

____ 5. Offers employees a set rate of pay for their work

____ 6. Both required and voluntary amounts of money taken from the gross pay

____ 7. Payment for work done

____ 8. A reward that serves to motivate employees

____ 9. These deductions are Social Security payroll taxes

____ 10. The total amount of income that an employer owes an employee for a scheduled amount of time worked

Activity 7-5 • Identification

Directions

Identify types of company benefits by completing the following exercise. Read each item. Write the name of the company benefit in the space provided. A list of company benefits is provided for you.

Company Benefits
Holidays
Social Security
Unemployment Insurance
Vacations
Worker's Compensation Insurance

1. Provides financial assistance to workers who were laid off from their job.
   Benefit: ______________________________

2. Taxes collected for this program are taken as payroll deductions.
   Benefit: ______________________________

3. Days set aside by law or custom to observe an event or to serve as a day of freedom from labor or work.
   Benefit: ______________________________

4. Some companies encourage their employees to take these at certain times during the year when the workload is light.
   Benefit: ______________________________

5. Federal government program that offers financial assistance for workers and their families.
   Benefit: ______________________________

6. Funding is paid through employer contributions referred to as premiums.
   Benefit: ______________________________

7. Generally, benefit rates are established by each individual state.
   Benefit: ______________________________

8. Before receiving this benefit, new employees may be required to work a certain period of time, such as six months or a year.
   Benefit: ______________________________

9. Pays for all medical bills and loss of salary until the employee is able to return to work.
   Benefit: ______________________________

10. Designated by the President and Congress and observed by the District of Columbia and federal employees across the country.
   Benefit: ______________________________

Activity 7-6 • Writing

Directions

Review the value of company benefits by completing the following writing exercise. You may use the space provided to write your response, a separate sheet of paper, or a word processing program.

Companies often offer benefits as part of the total employee compensation package. Although people can not spend benefits, the benefits may be worth a great deal of money. Write a brief description of a company benefit that you think might be important to you. Provide a reason for your answer.

Chapter 8

Safety Policies

Chapter Focus

The following Essential Knowledge and Skills are discussed in Chapter 8:

4A	Evaluate potential safety hazards in the workplace
4B	Practice procedures that contribute to safe working conditions
4C	Apply safety and sanitation procedures when performing assigned tasks
4D	Analyze government regulations impacting safety and sanitation practices in institutional maintenance operations
5A	Demonstrate safe and responsible storage, use, and disposal of materials
5B	Describe environmental issues specific to an assigned workplace
5C	Demonstrate appropriate responses to emergency situations
11G	Predict the impact of technological advancements on the institutional maintenance management and services industry

Introduction

The safety of guests, patients, and employees is the responsibility of all individuals within an establishment. Both management and employees share basic responsibilities in maintaining a safe work environment. Management responsibilities include establishing safety standard regulations, following safety guidelines set by the federal Occupational Safety and Health Administration (OSHA), enforcing health policies to prevent the spread of diseases, and emergency planning. Employees contribute to a safe work environment by adhering to safety regulations, notifying supervisors whenever a safety policy violation is observed, and understanding and practicing proper infection-preventing procedures.

Activity 8-1 • True/False

Directions

Review the information covered in the introduction of Chapter 8 and the material related to cost of workplace injuries by completing the following activity. Read each statement. If the statement is true, circle the letter **T** to the left of the statement. If the statement is false, circle the letter **F**. In the space provided, rewrite each false statement to make it true.

T F 1. Security is the term used when discussing fire and accident prevention, disasters, and protection devices.

T F 2. Safety refers to the freedom from fear and anxiety, as well as protection against the loss or theft of property.

T F 3. Within an institution, only management is responsible for the safety and security of guest, patients, employees, and property.

T F 4. When a safety policy violation is observed, a letter should be sent to the supervisor.

T F 5. Being observant and recognizing possible safety hazards are ways to ensure a safe working environment.

T F 6. The rapidly growing service industry poses new safety and health challenges for industry, labor, and government.

T F 7. Workplace injuries can be a financial burden on businesses.

T F 8. The average annual cost of all workplace injuries is estimated at more than one billion dollars.

T F 9. Work-related injures can cost businesses about $100,000 per injury.

____

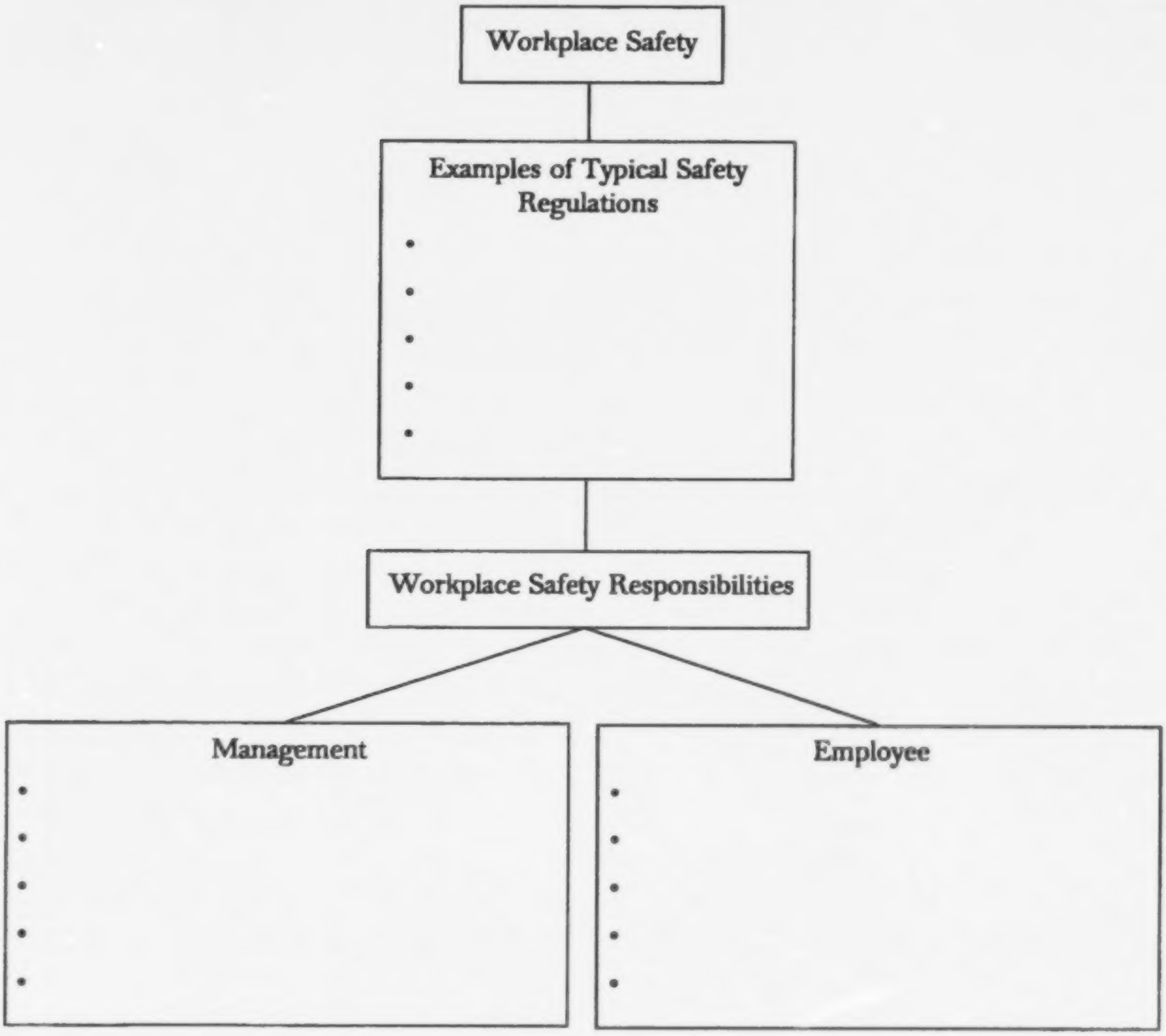
T F 10. Training replacement workers is one of the costs companies pay out when employees are injured on the job.

____

Activity 8-2 • Web Diagram

Directions

All individuals within an establishment are responsible for safety. Both management and employees share basic responsibilities in maintaining a safe work environment. Review the information regarding safety standard regulations by completing the following web diagram. Write the appropriate information in the blanks provided.


Workplace Safety
Examples of Typical Safety Regulations
Workplace Safety Responsibilities
Management
Employee

Activity 8-3 • Short Answer

Directions

Review OSHA regulations by completing the following exercise. Read the following items. Record your answers in the spaces provided.

1. What does the acronym OSHA stand for?

2. What is the mission of OSHA?

3. What factors contribute to a healthy work environment? Name three.
   1)
   2)
   3)

4. How does the right-to-know law help to protect employees?

5. What types of employee training are required by the right-to-know law? Name three.
   1)
   2)
   3)

6. What is the definition of a hazardous substance?

7. What is the purpose of material safety data sheets?

8. What are the eleven types of information that must be included on all material safety data sheets?
   1)
   2)
   3)
   4)
   5)
   6)
   7)
   8)
   9)
   10)
   11)

9. In relation to indoor air quality, why are health organizations concerned about the use of cleaning chemicals by institutional maintenance employees?

10. How is a "Green" product considered safe and healthy?

Directions

Review OSHA compliance information by completing the following exercise. You may use the space provided, a separate sheet of paper, or a word processing program for your response.

▲ You are the Director of Environmental Services for a company that uses hazardous chemicals in daily operations. Currently, you are in the process of hiring a manager for one of the three company locations. A top prospect for the position has expressed some concern regarding company training in the safe use of hazardous chemicals. Write a letter to this person (use a name of your choosing) reassuring them that your company follows OSHA training requirements. In your letter, you may want to include some of the topics highlighted in the Reference Book text found on pages 107-108.

Dear ______________________________,

Activity 8-5 • Sentence Completion

Directions

Review the information regarding ergonomics by completing the following exercise. Select the most appropriate word(s) from the word list to complete each sentence. Place the word(s) in the blank(s) provided.

Word List

cumulative trauma disorder
injuries
job task
joints and muscles
overworked muscles
people and machines
poorly designed
safety specialists
simple and inexpensive
work-related musculoskeletal disorders

1. Ergonomics is the study of how ____________ ____________ ____________ interact in their environment.

2. Ergonomics involves fitting the ____________ ____________ to the person doing the work.

3. Most ____________ ____________ are trained in ergonomics studies.

4. When the tool used for the job and the physical characteristics of the worker are mismatched, ____________ ____________ ____________ can result.

5. Often, ____________ ____________ ____________ changes can greatly reduce WMSDs.

6. Repetitive strain injuries are a type of ____________ ____________ ____________.

7. CTDs are ____________ resulting from the combination of poorly designed tasks and repeated use of the hand, wrist, arm, or leg.

8. CTDs cause damage to nerves, ____________ ____________ ____________.

Activity 8-5 • Sentence Completion, cont'd.

9. Some injuries and illnesses result from the shock, impact, and vibration caused by ______________ ______________ hand tools.

10. Injuries can occur when ______________ ______________ and inflamed tendons swell, reducing blood flow.

Activity 8-6 • Scenarios

Directions

Review factors involved in workplace health policies by completing the exercise below. Read the following scenarios. Record your responses in the spaces provided.

Scenario One

Pedro is interviewing for a position with the Woodruff Nursing Home. He has heard that housekeeping and maintenance employees are at great risk of being infected with the HIV/AIDS virus. As the manager of the nursing home, respond to Pedro's questions regarding the risks of HIV infection.

1. What three ways is HIV spread?
   1)
   2)
   3)
2. What is the average risk for health care personnel exposed to HIV-infected blood?
3. What precautions does the Center for Disease Control recommend for employees who may be at risk for contracting HIV/AID?

Scenario Two

As a Family and Consumer Sciences Extension agent, you are often invited to local schools to educate students on health-related issues. A local school principal has contacted you and asked that you participate in the school's Health Week Program. You are to present information concerning Hepatitis B and Hepatitis C. Prepare your presentation by answering the following questions.

1. What is hepatitis B?
2. How is hepatitis B spread?
3. Hepatitis B infection poses an occupational hazard to which workers?

4. How can at-risk workers protect themselves?

5. What is hepatitis C?

6. How serious is hepatitis C?

7. How is hepatitis C spread?

8. What vaccinations are available for hepatitis C?

9. What preventative procedures are appropriate for hepatitis C?

10. What is the key to protection?

Scenario Three

Helena is planning to open a health care facility. She needs information regarding OSHA regulation as pertains to biological hazards. As the OSHA representative, explain to Helena the universal precautions developed by the Center for Disease Control.

Further, tell Helena of three other risk-reducing methods that she might implement in her new health care facility.

Scenario Four

Luanne is an inspector for the Environmental Protection Agency (EPA). She has been called to a local business to provide information regarding regulations established for the use of labels on hazardous products. Luanne is preparing her presentation. What types of labeling information do you suggest Luanne include in her presentation?

1.

2.

3.

Scenario Five

As Director of Environmental Services of a large waste management services facility, you are planning topics for the up-coming staff meeting. You have decided to address drug testing and smoking policies in the workplace. Prepare your presentation by answering the following questions.

1. What three methods of drug testing are available?
    1)
    2)
    3)

2. What does a positive drug test indicate? What does a positive drug test ***not*** prove?

3. What four risks does the industry face when drug use is detected?
    1)
    2)
    3)
    4)

4. What health risks do smokers face? How are nonsmokers at risk?

5. What are three examples of smoking policies that a company could develop and implement?
    1)
    2)
    3)

Activity 8-7 • Fill-in-the-Blank

Directions

Review emergency planning by completing the following exercise. For each item below, write the word(s) in the blank provided that best completes the sentence.

1. The most common elements of fire are ____________________, ____________________, and ____________________.

2. Any material that will burn is considered a ____________________.

3. Liquid or powdered products that can burst into flames upon combination with air, liquid, another chemical, or an electrical spark are known as ____________________ ____________________.

4. Common housekeeping products that can be deadly if not used or stored correctly include ____________________ ____________________, ____________________ ____________________ ____________________, and oils.

5. Fires that start in rubbish piles, boxes of rags or oily dust cloths or mops are caused by ____________________ ____________________.

6. Combustible items should be stored in ____________________, ____________________containers.

7. Rather than fire, ____________________ and ____________________ are more likely to cause death.

8. An individual should drop to the floor and crawl quickly to the nearest exit when ____________________ is detected.

9. People who are in frightening and uncertain situations are often affected by ____________________.

10. An informed employee who remains ____________________ and assumes control can greatly affect the outcome of a hazardous situation.

11. Any sudden, unforeseen emergency that may cause personal injury, loss of life, or property damage is considered a ____________________.

12. Tornadoes, floods, earthquakes, hurricanes, and snowstorms are types of ____________________ disasters.

13. Explosions, fires, traffic accidents, bomb threats, shootings, riots, terrorist attacks and war are examples of ____________________ disasters.

14. In all but the largest organizations, it is the responsibility of the ____________________ ____________________ to plan emergency procedures.

15. The primary responder to disaster in the United States is FEMA or the ____________________ ____________________ ____________________ ____________________.

Activity 8-8 • Identification

Directions

Review the classification of fires by completing the box below. Read the following fire characteristics then use the space provided to the left of the numbered item to identify the fire as Class A, Class B, Class C, or Class D. Identify the fire classification using the provided code.

First Classification Code

A = Class A
B = Class B
C = Class C
D = Class D

Classification	Characteristic
	1. The dry powder extinguisher puts a barrier around the fire. This barrier allows the fire to burn itself out.
	2. Occurs in ordinary combustibles such as wood, paper, textiles, and rubbish.
	3. The first step in extinguishing this fire is to limit the oxygen on which the fire feeds.
	4. When extinguishing this fire, the stream of water should be directed at the fire not at the smoke.
	5. Involves flammable liquids, such as oils, greases, and gasoline.
	6. This is the most common type of fire.
	7. Carbon dioxide extinguishers should be released at the nearest edge of the fire using slow side-to-side motions.
	8. When the electrical source is disconnected, these types of fires often become class A fires.
	9. A side-to-side motion should be used to wet the entire burning surface.
	10. Occurs in combustible metals.

Chapter 9

Safety and Sanitary Procedures

Chapter Focus

The following Essential Knowledge and Skills are discussed in Chapter 9:

- 4A Evaluate potential safety hazards in the workplace.
- 4B Practice procedures that contribute to safe working conditions.
- 4C Apply safety and sanitation procedures when performing assigned tasks.
- 4D Analyze government regulations impacting safety and sanitation practices in institutional maintenance operations.
- 5A Demonstrate safe and responsible storage, use, and disposal of materials.
- 5B Describe environmental issues specific to an assigned workplace.
- 5C Demonstrate appropriate responses to emergency situations.

Introduction

Many times, people ignore preventive measures and safety programs. As a result, accidents occur. Institutional maintenance personnel can contribute to the safety of an institution by paying attention when operating equipment, handling and caring for equipment carefully, using the correct tools and equipment to complete jobs, observing safeguards when working with electrical equipment, and wearing protective clothing.

Since many people use institutional facilities each day, it is likely that rooms, furnishings, and linens will be contaminated with germs that spread communicable diseases. Unsanitary conditions, such as unpleasant odors, the spread of germs, and the invasion of rodents and insects, can be prevented by institutional maintenance employees who understand sanitation procedures, disinfection principles, and the importance of personal hygiene.

BEST COPY AVAILABLE

Activity 9-1 • Scenario

Directions

Review safe use and care of electrical equipment by completing the following exercise. Read the scenario. Then follow the directions listed below.

Scenario:

Courtney is newly employed in the institutional maintenance department with the Huges Janitorial Services. This morning the company received a call from a client who required immediate service. A huge water tank had burst overnight and the warehouse was flooded. Hughes Janitorial Services was needed to come in and clean the water so that business could resume. Courtney was one of the employees sent out to the job site.

At the job site, Courtney was given the task of operating the wet/dry vacuum. In the area where she was designated to work most of the water had evaporated; however, there was still about 1/2 inches of water remaining. Courtney had forgotten to wear her rubber-soled shoes but felt that she would be safe as there was not that much water. She took the wet/dry vacuum and extension cord from the van. The extension cord had a worn spot where Courtney could see the wires but it was the only cord left so she had no choice but to use it. She found the outlet and noticed that it had several electrical plugs extending from it. However, there was room for one more plug so she plugged in the extension cord.

Dragging the extension cord across the wet floor from the outlet to the wet/dry vacuum, Courtney noticed that her hands were wet. The vacuum on/off switch was in the "on" position when Courtney went to plug the equipment into the extension cord.

☞ In the scenario, Courtney made some errors in following safety procedures. Find and list at least five safety errors using the spaces provided.

1.

2.

3.

4.

5.

Activity 9-2 • Classification

Directions

Review the general safety guidelines for cleaning equipment and cleaning supplies by completing the following exercise. Read the safety guidelines listed below. Some of the guidelines apply to cleaning equipment and others apply to cleaning supplies. Complete the box by writing the safety guidelines in the best category.

Safety Guidelines:

- Keep long hair pulled back and away from moving parts when operating machinery.
- Close containers properly if work is interrupted.
- Destroy all unlabeled containers.
- Store sharp objects such as pins, scissors, and knives in a safe place.
- Avoid splashing cleaning products in eyes, on skin, or on clothes.
- Keep aisles and traffic lanes clear of trash and electrical cords.
- Do not wear loose clothing or dangling jewelry when working near moving machinery.
- Do not put a product into a different labeled container.
- Keep greasy or oily cloths and dust mop heads in closed metal containers.
- Close drawers and doors carefully to avoid knocking over cleaning products.

Safety Guidelines for Cleaning Equipment	Safety Guidelines for Cleaning Supplies
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.

Activity 9-3 • *Labeling*

Directions

Review the information regarding protective clothing by completing the following exercise. Complete the box below with the missing information. Refer to Table 9.1 on page 123 of the Reference Book for assistance.

Types of Protective Clothing	Examples of Hazards
	Trash removal, use of disinfectants
Canvas Gloves	
Chemical Resistant Gloves	Acid, pesticides, other hazardous chemicals
Ear Plugs	
	Acids, flying particles, pesticides
	Acid, ammonia, chemicals handling, pesticides
	Falling objects
Impervious Gloves	
Latex Gloves	Solvents, detergents, disinfectants, soaps
Masks	
	Stripping, mopping, and waxing floors
Safety Shoes	
Spectacles with side shields	Flying particles, dust

Activity 9-4 • Short Answer

Directions

Review safe use of hazardous substances by responding to the following items. Use the spaces provided to record your answers.

1. What is the definition of a hazardous substance?

2. In what forms can hazardous substances be found?

3. How do employers provide a healthy work environment?

4. What types of information are listed on MSDs? Name three.
   1)
   2)
   3)

5. What are some safe handling guidelines to follow when using chemicals? List three.
   1)
   2)
   3)

Activity 9-4 • Short Answer, cont'd.

6. Why are organic solvents a potential danger?

   What are five products in which organic solvents are found?

   1)
   2)
   3)
   4)
   5)

7. Although corrosives are usually not flammable, they are considered a danger. Why?

8. What are some general guidelines for storing chemicals? List five.

   1)
   2)
   3)
   4)
   5)

9. What two agencies provide guidelines for safe and proper disposal of chemicals?

10. What are five general guidelines for disposal of hazardous substances?

    1)
    2)
    3)
    4)
    5)

Activity 9-5 • Matching

Directions

Review guidelines for chemical emergencies by completing the following exercise. Match the type of emergency to its proper procedure. Place the letter of the type of emergency in the blank to the left of the procedure. Each letter will be used twice.

Type of Emergency

A. eye contact
B. fire
C. skin contact
D. unconsciousness
E. vapors

Guidelines

____ 1. Drench clothing thoroughly with plenty of water.

____ 2. Close containers, open windows, turn on vented hoods or other ventilation.

____ 3. Before extinguishing, it is important to know what substance is involved.

____ 4. Do not use ointments or slaves, which may be dangerous.

____ 5. Before entering an area, make certain that there is no present danger from hazardous substances or inadequate oxygen.

____ 6. It is best to evacuate the area and get professional help.

____ 7. Remove contaminated clothing while drenching it.

____ 8. Give artificial respiration, if appropriate, and get medical attention.

____ 9. Get fresh air immediately if a strong odor is detected.

____ 10. Flush immediately with running water unless the chemical water is reactive.

Activity 9-6 • Identification

Directions

The box illustrated below provides examples of accidents that commonly occur in institutions. Complete the box by listing three causes and three preventive measures for each accident.

Type of Accident	Causes	Preventive Measures
Burns and Shocks	1. 2. 3.	1. 2. 3.
Cuts	1. 2. 3.	1. 2. 3.
Falls	1. 2. 3.	1. 2. 3.
Strains and Sprains	1. 2. 3.	1. 2. 3.

Activity 9-7 • Word Scramble

Directions

Unscramble the words in the following sentences to review first aid information. Write the unscrambled word on the blank to the left of each statement.

__________ __________ 1. The immediate and temporary care given to a person who has been injured or who has suddenly become ill is known as SFRTI DAI.

____________________ 2. Severe bleeding must be stopped DTIMELYMAIE.

____________________ 3. In cases of massive bleeding, use a bandage twisted around the limb or a TUUTQRNIEO to control bleeding.

____________________ 4. A person who has stopped breathing may be unconscious, with no breathing movements in the chest or stomach, lips may be blue, and SLIPUP may be dilated.

____________________ 5. A result from a depression of vital body functions is known as KHOSC.

____________________ 6. After an accident, if victims are unconscious, nauseated, have head or abdominal injuries, or may require surgery they should not be given USDFIL.

____________________ 7. A burn that is characterized by blisters forming on the burned area and charring of the skin is a RDHTI-EREDGE burn.

____________________ 8. In cases of head or neck injuries, placing rolled up clothing or blankets around the head and the sides of the neck and shoulders will BIOZIMIMEL those parts of the body.

____________________ 9. When something, such as food, becomes lodged in the throat and breathing is obstructed, individuals can EKCOH.

____
____________________ 10. A method of forcing air from the lungs to dislodge an obstruction in a person's throat is an abdominal thrust procedure known as the MICHLEHI NEUREMVA.

Activity 9-8 • Sequencing

Directions

Listed below are the instructions that should be followed when using the Heimlich maneuver. However, the steps are out of order. Read the items and then place the steps in the correct order from **#1** to **#5**.

____ Make a fist with one hand and place the thumb side against the middle of the victim's abdomen just above the navel but below the rib cage.

____ Repeat these thrusts until the object is forced out or the victim becomes unconscious.

____ Stand behind the victim.

____ Grab your fist with your other hand and give quick, inward and upward thrusts into the abdomen

____ Wrap your arms around the victim's waist.

Activity 9-9 • True/False

Directions

Read the following statements about sanitation in institutional maintenance. If the statement is true, circle the letter **T** to the left of the statement. If the statement is false, circle the letter **F**. In the space provided, rewrite each false statement to make it true.

T F 1. People easily spread germs so it is likely that rooms, furnishings, and linens will be contaminated with germs that spread communicable diseases.

____

T F 2. The institutional maintenance staff should maintain high standards of cleanliness in order to protect against contamination and prevent liability claims and loss of future business.

____

T F 3. Disinfection is the process of making something clean or sterile.

____

T F 4. Pathogens grow slowly and can be seen without a microscope.

____

T F 5. Pathogens that enter the body are not noticed until systems of disease appear.

____

T F 6. Destroying pathogens can prevent the spread of disease.

____

T F 7. Sterilization is the process of destroying pathogens, such as bacteria and viruses.

____

T F 8. Disinfectants are solutions used on inanimate objects to kill disease causing bacteria and viruses.

____

Activity 9-9 • True/False, cont'd.

T F 9. Disinfectants can cause personal injuries, produce harmful fumes, and damage some surfaces.

____

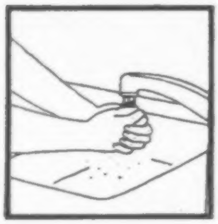
T F 10. Disinfectants that have a broad range of kill are those chemicals that kill one type of germ.

____

Activity 9-10 • Pictograms

Directions

Below are pictograms that illustrate the six steps in proper hand washing. The pictograms are not in the correct order. First, place the number of the step in the appropriate blank. Then, use the blanks provided to describe the step shown in the pictogram.



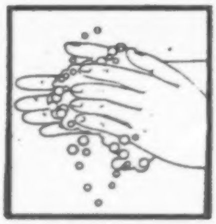
(A) Step # ________

____

____

____

____



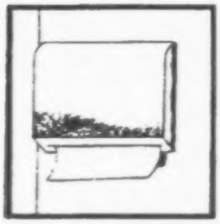
(B) Step # ________

____

____

____

____



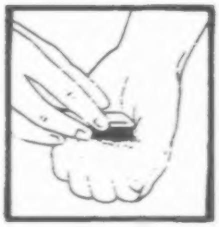
(C) Step # ________

____

____

____

____



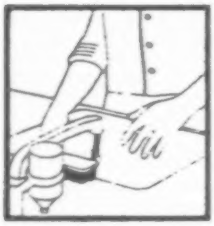
(D) Step # ________

____

____

____

____



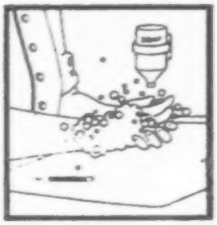
(E) Step # ________

____

____

____

____



(F) Step # ________

____

____

____

____

Chapter 10

Selecting Equipment and Supplies

Chapter Focus

The following Essential Knowledge and Skills are discussed in Chapter 10:

5A Demonstrate safe and responsible storage, use, and disposal of materials.

7A Develop guidelines for selecting equipment, supplies, and procedures for assigned tasks.

7B Apply appropriate procedures while operating equipment and using tools and products in the performance of assigned tasks.

7C Describe the impact of technology on equipment, supplies, and procedures utilized in the industry.

7F Predict institutional maintenance cost variances based on material, surface, and furnishing considerations.

8A Exhibit work simplification techniques and prescribed procedures for specific cleaning tasks.

11G Predict the impact of technological advancements on the institutional maintenance management and services industry.

Introduction

In institutional cleaning, the maintenance and housekeeping staff use a variety of cleaning products, tools, and power equipment. Executive housekeepers and managers are responsible for selecting equipment and supplies based on safety, ease of use, performance, cost-effectiveness, availability of safety information, ability of employees to use the equipment and supplies properly, and amount of training required. Having the proper tools and equipment for the job allows workers to perform tasks more easily and efficiently.

Activity 10-1 • True/False

Directions

Read the following statements about selecting equipment and supplies in institutional maintenance. If the statement is true, circle the letter **T** to the left of the statement. If the statement is false, circle the letter **F**. In the space provided, rewrite each false statement to make it true.

T F 1. In institutional cleaning, the maintenance and housekeeping staff mostly use soap and a wet mop to clean areas.

T F 2. Executive housekeepers and managers must continually evaluate cleaning products and tools.

T F 3. Supplies and equipment are selected on criteria such as safety, ease of use, and cost-effectiveness.

T F 4. Floor supervisors are expected to maintain a supply and equipment budget.

T F 5. The housekeeping staff is required to monitor equipment and supply use in order to control costs.

T F 6. Controlling costs includes monitoring losses of supplies and equipment due to theft or misuse.

T F 7. Employees are not trained in the wasteful use of supplies.

T F 8. Institutions are unable to use packaged, premeasured cleaning products as a way to control supplies usage.

T F 9. A lack of training in how to operate machinery can result in costly accidents.

____

T F 10. Executive housekeepers and managers often rely on reputable suppliers to assist them in making cleaning product and equipment selections.

____

Activity 10-2 • Matching

Directions

Review small housekeeping equipment by completing the following activity. Match the type of housekeeping equipment with the descriptive statements by placing the letter of the type of housekeeping equipment in the blank to the left of the statement. Each answer will be used once only.

Type of Housekeeping Equipment

A. brushes
B. carpet sweeper
C. dust cloths
D. dust mop
E. dustpan
F. feather duster
G. floor broom
H. push broom
I. putty knife
J. sponges
K. sponge mop
L. squeegee
M. spray bottle
N. wet mop
O. whisk broom

Descriptions

____ 1. Useful in policing dining and public areas because they can be used without disturbing patrons

____ 2. Also referred to as a toy broom

____ 3. Used to clean fabric or upholstery and to brush out small, semi-enclosed areas such as shelves

____ 4. Used to clean large areas of floor without creating a large amount of dust

____ 5. An item into which dirt and litter is swept or brushed

____ 6. Used to remove soil or dirt from both hard and soft surfaces

____ 7. Used for a variety of cleaning tasks such as absorbing liquids and cleaning sinks and counters

____ 8. Used to remove light soil that accumulates on surfaces

____ 9. Used to remove cobwebs and to dust decorative items

____ 10. Used to sweep dry, smooth, hard-surface floors

____ 11. Used to transfer wet liquids to and from floors

____ 12. Used to clean walls, floors, and small areas such as stairs

____ 13. A rubber blade used to move water on flat surfaces

____ 14. Used to apply products such as cleaning solutions, dust mop treatments, and insecticides

____ 15. A tool with a broad, flexible blade used to scrape dried or sticky materials from hard surfaces

Activity 10-3 • Fill-in-the-Blank

Directions

Having the proper tools and equipment for the job allows individuals to perform tasks more easily and efficiently. Review large housekeeping equipment by completing the following activity. For each item below, write the word(s) in the blank provided that best completes the sentence.

1. To carry equipment, supplies, and trash from one area to another, institutional maintenance employees use a(n) ____________________ ____________________.
2. The equipment used primarily for the transportation of routine cleaning supplies and equipment with an emphasis on floor care, restroom care, and trash collection is a(n) ____________________ ____________________.
3. A canvas bag used to collect dry trash from wastebaskets is a(n) ____________________ ____________________.
4. Equipment used to hold and transport linens is a(n) ____________________ ____________________ ____________________.
5. A machine that uses suction to remove dirt and debris from carpets, floors, and upholstery is a(n) ____________________ ____________________.
6. Brushes and rotate to loosen dirt that can be easily vacuumed are called ____________________ ____________________.
7. Dual-motor vacuums are referred to as _____ ______________ vacuums.
8. Hospitals, computer rooms, and precision assembly areas are places where a ____________________ ____________________ ____________________ ____________________ filter vacuum may be found.
9. A large, motor-driven, upright vacuum that resembles a lawn mower is a(n) ____________________ ____________________.
10. Vacuums used in large facilities such as malls and sports arenas are ____________________ ____________________.
11. A type of vacuum in which the motor of the vacuum is placed in a central location, such as a basement, is a(n) ____________________ - ____________________ ____________________.
12. Vacuums that are used when hard-surface floors are stripped and cleaned are ____________________ ____________________.

Activity 10-3 • Fill-in-the-Blank, cont'd.

13. The housekeeping equipment used in areas that often require the removal of large amounts of water, such as swimming pool and recreational areas, is a(n) ____________________
____________________.

14. A small vacuum that provides flexible and efficient cleaning of curtains, drapes, ceiling corners, high shelves, and other areas requiring high dusting is a(n) ____________________
____________________.

15. A lightweight vacuum that has no motor-driven beater bar is a(n) ____________________
____________________.

16. The housekeeping equipment used for vacuuming small spills on floors, furniture, and stairs as well as vacuuming draperies and window blinds is a(n) ____________________
____________________.

17. The fact that the motor generates much noise which can disturb patrons is a major disadvantage to using a(n) ____________________ - ____________________
____________________ ____________________.

18. The housekeeping equipment referred to by other names such as buffer, scrubber, stripper, and polisher is a(n) ____________________ ____________________
____________________.

19. A piece of equipment that injects and then removes a hot detergent mist from carpet is a(n)
____________________ ____________________.

20. The machine that consists of two tanks and two flat, rectangular trowels (pads) is a(n)
____________________-____________________ ____________________.

Activity 10-4 ● Analysis

Directions

Currently, robotic machines are being tested for use in the field of institutional maintenance. The text describes ways in which robots might perform special tasks and services. In the space provided, create a robot for use in the institutional maintenance field. Draw a picture of the robot you create. Beneath your illustration, describe the job function this robot will perform. You may want to label the different parts of your robot to clarify any special features or functions.

Activity 10-5 • Multiple Choice

Directions

Using an inappropriate cleaner or polish on a surface can cause permanent damage. Review chemical housekeeping equipment by completing the following exercise. For each item listed, select the best answer from the choices provided beneath each sentience. Place the letter of the response in the blank that is to the left of the numbered item.

____ 1. The use of premeasured products provides all of the following EXCEPT
   A. better inventory procedures
   B. dangerous situations for the user
   C. high degree of cost control
   D. optimum cleaning

____ 2. A natural cleaning agent that does not rinse well and leaves greasy residues that interfere with disinfection is a(n)
   A. abrasive cleaner
   B. all-purpose cleaner
   C. detergent
   D. soap

____ 3. Products made from synthetics and that are powerful cleaners are
   A. all-purpose cleaners
   B. detergents
   C. disinfectants
   D. soaps

____ 4. A compound used to break the bond between the soil and the surface being cleaned thereby permitting the oil or dirt to be removed is a(n)
   A. degreaser
   B. hydrophile
   C. hydrophobe
   D. surfactant

____ 5. The compound used extensively in hospitals due to its sanitizing capabilities is a(n)
   A. anionic surfactant
   B. cationic surfactant
   C. disinfectant
   D. nonionic surfactant

____ 6. Compounds that generate a high level of suds and that are incompatible with QUATS are
   A. anionic surfactants
   B. all-purpose cleaners
   C. cationic surfactants
   D. nonionic surfactants

____ 7. Compounds often used in industrial cleaners because they are effective for removing oil, grease, and dirt are
A. anionic surfactants
B. cationic surfactants
C. detergents
D. nonionic surfactants

____ 8. One disadvantage to this product is that it is not effective for use where a disinfectant is needed. This product is a(n)
A. all-purpose cleaner
B. detergent
C. soap
D. solvent cleaner

____ 9. A strong cleaning agent used on hard-to-remove soils such as lime deposits in toilet bowls is a(n)
A. abrasive cleaner
B. acid cleaner
C. detergent
D. solvent cleaner

____ 10. Cleaners seldom used in health care facilities because they scratch surfaces providing places for microorganisms to hide are
A. abrasives
B. acids
C. solvents
D. stain removers

____ 11. Cleaning agents that must meet federal and state guidelines and must be registered and approved for use by the Environmental Protection Agency are
A. detergents
B. deodorants
C. disinfectants
D. soaps

____ 12. Substances used to clean, restore, and protect wood surfaces are
A. furniture polishes and cleaners
B. "Green" products
C. metal polishes
D. solvents

____ 13. Types of furniture polishes and cleaners used on woods that are in poor condition are
A. creams
B. liquids
C. pastes
D. sprays

Activity 10-5 • Multiple Choice, cont'd.

____ 14. Types of furniture polishes and cleaners that create a high luster are
A. creams
B. liquids
C. pastes
D. sprays

____ 15. Types of furniture polishes and cleaners that help remove food and drink stains and light grease marks are
A. creams
B. liquids
C. pastes
D. sprays

____ 16. Types of furniture polishes and cleaners that coat the wood producing a surface that shines and repels dust and fingerprints are
A. creams
B. liquids
C. pastes
D. sprays

____ 17. Products designed to protect flooring material from wear, cleaners, and liquid spills are
A. carpet cleaners
B. finish strippers
C. "Green" products
D. sealers and finishes

____ 18. A harsh alkali that removes worn finish from floors is a(n)
A. metal polish
B. finish stripper
C. "Green" products
D. sealers and finishes

____ 19. Sanitizers and soil and stain repellents are products that can be found in
A. carpet cleaners
B. finish strippers
C. "Green" products
D. sealers and finishes

____ 20. Products that are biodegradable and leave little or no remaining residue are referred to as
A. carpet cleaners
B. finish strippers
C. "Green" products
D. sealers and finishes

Chapter 11

Hard-Surface and Soft-Surface Floor Care Procedures

Chapter Focus

The following Essential Knowledge and Skills are discussed in Chapter 11:

7A Develop guidelines for selecting equipment, supplies, and procedures for assigned tasks.

7B Apply appropriate procedures while operating equipment and using tools and products in the performance of assigned tasks.

7D Describe appropriate procedures for completing a variety of tasks involved in institutional maintenance.

Introduction

Floor care or maintenance is a major responsibility of housekeeping and maintenance personnel. Floors are maintained so they will be comfortable and safe. Institutional maintenance employees spend over half of their time caring for floors. Floor care has become a more complex task because of the wide variety of floor coverings and floor care chemicals available. Institutions contain numerous kinds of floor coverings. Therefore, housekeeping employees must become familiar with basic flooring types and with general steps to follow in caring for them.

Activity 11-1 • Short Answer

Directions

Floor care or maintenance is a major responsibility of housekeeping and maintenance personnel. The amount of time and effort involved in cleaning a floor is determined by the type of floor. Complete the box by describing the hard-surface floor finishes and giving the required care.

Floor Finishes	Description	Care Required
Asphalt Tile		
Carpet		
Ceramic Tile		
Rubber Tile		
Vinyl Tile		

Directions

Complete the following exercise to review sweeping and mopping procedures and stripping, sealing, and buffing procedures for hard-surface flooring. Read the case studies below and write your response in the blanks provided.

Case Study 1

Jerome is a high school student wanting to enter the institutional maintenance field upon graduation. To get practical experience, he works in the maintenance department of the health care facility where you serve as the cleaning supervisor. Today, Jerome's task is to sweep the lobby area and all corridors to prepare them for wet mopping. Instruct Jerome in choosing equipment and supplies and the proper sweeping procedures to be used in a congested room and in an open area.

Equipment and supplies:

Sweeping in a congested room:

Sweeping in an open area:

Case Study 2

After completing the sweeping tasks, Jerome checks in with you for instructions in mopping the areas. He asks you whether he should damp mop or wet mop. Explain to Jerome the difference between damp and wet mopping. Then, help him in selecting the proper equipment and supplies and provide him with wet mopping procedures.

Damp mopping:

Wet mopping:

Equipment and Supplies:

Wet mopping procedures:

1. Explain how to use a double bucket system.

2. Explain how to apply solution to the inner mopping area.

3. Explain when to use a push-pull movement.

4. Explain why the solution should remain on the floor the required amount of time.

5. Explain two ways in which solution can be removed from the floor.

Case Study 3

Over the past few weeks there has been a large employee turnover in the housekeeping department at the health care center. As most of the new hires have little or no experience in the care of hard-surface flooring, you decide to hold an in-service training seminar. The topic of your seminar is stripping, sealing, and buffing procedures. Prepare your presentation by answering the following questions.

1. What does the stripping process accomplish?

2. What are four reasons for stripping old floor finish?
   1)
   2)
   3)
   4)

3. What three purposes do floor finishes or sealers serve?
   1)
   2)
   3)

4. Why should finishes and sealers be used in small amounts?

5. What is buffing?

6. How are buffing and burnishing similar?

7. How does burnishing differ from buffing?

8. What purpose does spray buffing serve?

9. What products are used in a spray buffing solution?

10. Why should floors be dust mopped or wet mopped before buffing?

Activity 11-3 • True/False

Directions

Read the following statements about soft-surface floor care. If the statement is true, circle the letter **T** to the left of the statement. If the statement is false, circle the letter **F**. In the space provided, rewrite each false statement to make it true.

T F 1. Carpets and rugs add to the beauty and comfort of an institution.

T F 2. Carpets are more difficult to maintain than hard-surface floors.

T F 3. Carpets do not wear as long as properly cared for hard-surface floors.

T F 4. Advances in carpet manufacturing, such as soil and stain resistance have increased the lives of carpets.

T F 5. One benefit to installing carpets is the acoustical properties that help to lower noise levels.

T F 6. Surface litter stays on top of carpet fibers and is easy to remove.

T F 7. Light dust includes strings, paper, and pins.

T F 8. Gritty dirt in carpets can be removed easily with a vacuum.

T F 9. Thorough weekly vacuuming is sufficient for helping carpets maintain their appearance for many years.

T F 10. Shampooing frequency is determined by the amount of traffic and the use a carpet receives.

Activity 11-4 • Identification

Directions

Summarize stain removal procedures for carpets by completing the following exercise. Read the following "What Am I?" statements. After reading each spotting recommendation, identify the correct type of stain from the list provided below. Write the term in the space provided.

Type of Stain

blood
candy
chocolate milk/cocoa
cola
fruit juice
gum
lipstick
nail polish
shoe polish
vomit

1. Blot up excess, sponge with detergent solution, blot with cloth, sponge with water, and blot with cloth. If stain persists, sponge with ammonia solution. If stain still persists, sponge with white vinegar solution.
   What am I? ______________________________

2. Scrape and blot up excess, sponge with detergent solution, blot with cloth, sponge with water, and blot with cloth. Repeat if necessary.
   What am I? ______________________________

3. Blot up excess, sponge with cold water, blot with cloth, sponge with detergent solution, blot with cloth, sponge with water, and blot with cloth. Repeat if necessary.
   What am I? ______________________________

4. Blot up excess, sponge with detergent solution, and blot with cloth. Repeat if necessary. If stain persists, apply ammonia solution and blot with cloth. If stain still persists, apply white vinegar solution and blot with cloth.
   What am I? ______________________________

5. Scrape up excess, sponge with white vinegar solution or detergent solution, blot with cloth, sponge with water, and blot with cloth. If stain remains, sponge with dry-cleaning solvent.
   What am I? ______________________________

6. Scrape up excess, sponge with detergent solution, blot with cloth, sponge with water, and blot with cloth. If stain persists, sponge with dry-cleaning solvent and blot with cloth.
   What am I? ______________________________

7. Blot up excess, sponge with dry-cleaning solvent, blot with cloth, sponge with water, and blot with cloth. If trace still persists, sponge with non-oily remover, blot with cloth, sponge with water, and blot with cloth. If stain still persists, sponge with dry-cleaning solvent again and then try detergent solution.
   What am I? ______________________________

8. Scrape up excess (may be easier if chilled first with ice cube or aerosol gum remover), sponge with dry-cleaning solvent, and blot with cloth. Repeat if necessary.
   What am I? ______________________________

9. Blot up excess, sponge with detergent solution, blot with cloth, sponge with water, and blot with cloth. If stain persists, apply ammonia solution, sponge with water, and blot with cloth. If stains persists, apply white vinegar solution, sponge with water, and blot with cloth.
   What am I? ______________________________

10. Scrape or blot up excess, sponge with white vinegar solution, and blot with cloth. If stain persists, sponge with nail polish remover or acetone, blot with cloth, sponge with water, and blot with cloth. If stain still persists, sponge with detergent solution, blot with cloth, and sponge with water. If traces remain, sponge with ammonia solution.
    What am I? ______________________________

Activity 11-5 • Fill-In-The-Blank

Directions

Review vacuuming and shampooing methods and procedures by completing the following activity. For each item below, write the word(s) in the blank provided that best completes the sentence.

1. The removing of dust and dirt from carpets or hard-surface floors with a machine is referred to as _______________.

2. To clean corners, crevices, and obstructed areas, vacuum attachments or a _______________ vacuum can be used.

3. The process of cleaning carpet with an absorbent compound is known as _______________ _______________.

4. A commercially prepared powder made of absorbent fibrous material, water, a detergent, and a dry solvent is a(n) _______________ _______________.

5. The process of cleaning carpet with foam consisting of a small amount of water mixed with a liquid detergent is known as _______________ _______________.

6. Steam cleaning is another term used for the _______________ method of carpet cleaning.

7. An absorbent, circular cloth pad that fits on a rotary floor machine is a(n) _______________ _______________.

8. A rotary floor machine is used for _______________ shampooing.

9. Growth of mold, mildew, and bacteria is a danger resulting from the _______________ of carpets when shampooing.

10. A disadvantage to the rotary brush method of carpet cleaning is that not all dirt is removed therefore rapid _______________ may occur.

Chapter 12

Above-Floor Care Procedures

Chapter Focus

The following Essential Knowledge and Skills are discussed in Chapter 12:

1A Identify routine maintenance practices of a specific business.
4C Apply safety and sanitation procedures when performing assigned tasks.
6A Analyze principles of time management and work-simplification when performing assigned tasks.
6B Demonstrate how to function effectively when performing routine procedures and practices related to specific businesses.
6C Predict the impact of effective time management and work simplification on the cost of institutional maintenance.
7A Develop guidelines for selecting equipment, supplies, and procedures for assigned tasks.
7B Apply appropriate procedures while operating equipment and using tools and products in the performance of assigned tasks.
7C Describe the impact of technology on equipment, supplies, and procedures utilized in the industry.
7D Describe appropriate procedures for completing a variety of tasks involved in institutional maintenance.
8A Exhibit work simplification techniques and prescribed procedures for specific cleaning tasks.

Introduction

In institutional maintenance services, it is important to develop a work pattern that will result in an efficient system of cleaning. Written cleaning procedures provide a consistent program of housekeeping and maintenance that is efficient, effective, and cost-effective. Procedures eliminate guesswork for new employees and remind experienced employees of the standards demanded by the institution. Written cleaning procedures for above-floor care include dusting, ceiling and wall care, furniture care, and glass care.

Activity 12-1 • Fill-in-the-Blank

Directions

Review both the introductory and the dusting information covered in Chapter 12 by completing the following activity. Read the following items. Write the word(s) that best completes the sentence in the space(s) provided.

1. In industrial maintenance services, it is important to develop a work pattern that will result in an ____________________ system of cleaning.

2. A consistent program of housekeeping and maintenance that is efficient , effective, and cost-effective is a result of ____________________ ____________________.

3. Though not always visible, ____________________ is present everywhere.

4. The longer dust remains on surfaces, the more difficult it is to ____________________.

5. Dust is influenced by the force of ____________________.

6. When dusting, always begin at the ____________________ of a room and work ____________________.

7. The goal of dusting is to pick up dust with a cloth or move dust to the floor to be ____________________.

8. Dusting should remove dust from a surface rather than just ____________________ it into the air.

9. To help hold the dust and prevent it from scattering, dust with a ____________________ dust cloth.

10. To dust plastic and laminated surfaces, use a ____________________ cloth.

11. Horizontal surfaces, such as shelves, table tops, and ledges, should be dusted daily ____________________ floors are cleaned.

12. Vertical surfaces should be dusted at least ____________________ ____________________ ____________________or as needed.

13. Areas that require more frequent dusting are ____________________ areas.

14. Movements with a feather duster should be ____________________ rather than random.

15. Shelves should be dusted from ____________________ to ____________________.

Activity 12-2 • Short Answer

Directions

Review ceiling and wall care by completing the following exercise. Read the following items. Use the spaces provided to record your answers.

1. Why is it important to maintain clean walls, ceilings, doors, and woodwork in a business establishment?

2. How do dirty walls and ceilings make an area appear darker?

3. Why is it especially important for walls and ceilings to be kept clean in health care facilities?

4. What is the correct procedure for removing cobwebs?

   Explain why this procedure is used.

5. What is the procedure for washing painted or tiled ceilings?

Activity 12-3 • Description

Directions

Complete the following exercise to review types of wall finishes and their care. Write your responses in the spaces provided.

Wall Finish	Description	Care Required
Wood paneling		
Wall coverings		
Natural stone surfaces		
Ceramic surfaces		
Grout		

Activity 12-4 ● Identification

Directions

The following exercise will help you to review information covered in the furniture care section of the text. Complete the box by listing one "Do" and one "Don't" of furniture care for the types of furniture listed. One example is provided. There may be more than one correct answer for each category and item.

Wall Finish	Do	Don't
Wood	• polish a high-luster finish with a non-oil base furniture polish or paste wax	• place solid wood or wood veneer in direct sunlight
Upholstered – fabric		
Upholstered – plastic		
Upholstered – leather		
Plastic		

Activity 12-5 • Scenario

Directions

The following scenario covers information concerning glass care. Read the scenario. Use the space provided or an additional sheet of paper to record your response.

> You are the custodian lead worker for an institutional maintenance service. Your supervisor informs you that there is a newly hired employee scheduled to begin her first day on the job today. As the lead worker, it is your responsibility to oversee the training program. One of the businesses on your scheduled cleaning appointments is the City Bank. This building has many windows that you and your team are responsible for cleaning. You think this is a perfect opportunity to teach the new employee how to properly care for glass and glass surfaces. For each item listed, write a brief explanation of the information you plan to share with the new employee.

1. Explain the characteristics of glass that make it a special cleaning problem.

2. Provide five reasons why glass surfaces may appear streaked after cleaning.
   1)
   2)
   3)
   4)
   5)

3. List the ten steps to be followed when cleaning an interior window. Refer to Figure 12.5 for needed assistance.

4. Explain the procedure for cleaning exterior windows.

5. Explain the procedure for cleaning mirrors.

Activity 12-6 • True/False

Directions

Review the information regarding care of furnishings by completing the following exercise. Read each statement. If the statement is true, circle the letter **T** to the left of the statement. If the statement is false, circle the letter **F**. In the space provided, rewrite each false statement to make it true.

T F 1. Draperies, blinds, and shades should be vacuumed or dusted on a regular basis.

____

T F 2. With regular vacuuming, draperies should be dry cleaned at least once every three years.

____

T F 3. Blinds that are heavily soiled with grease, dust, or smoke, should be replaced.

____

T F 4. Cleaning drapery hardware with a metal polish leaves a film that inhibits the buildup of dirt and soil.

____

T F 5. For lamps, lampshades should be dusted regularly.

____

T F 6. A dry foam cleaner can be used to clean soiled fabric lampshades.

____

T F 7. Overhead lighting or wall fixtures should be cleaned once every week.

____

T F 8. When cleaning light fixtures, the electrical current should be turned off whenever possible.

____

T F 9. Cleaning chandeliers requires special scaffolding or a special hoist due to the high ceilings.

____

Activity 12-6 • True/False, cont'd.

T F 10. When a chandelier is cleaned, only the burned-out light bulbs are replaced.

____

T F 11. Using glass cleaner to clean lightly soiled ashtrays also helps to deodorize them.

____

T F 12. Use a deodorizer to clean the mouthpiece of a telephone.

____

T F 13. Clean picture frames by spraying glass cleaner directly on the picture glass then wipe with a soft cloth.

____

T F 14. Clean oil paintings annually using a cleaning solution.

____

T F 15. When cleaning computers, it is a good practice to consult the owner's manual and follow the manufacturer's recommended procedures.

____

T F 16. The cleaning solution used for cleaning computer casings consists of 1/4-teaspoon ammonia mixed with one-quart water.

____

T F 17. When cleaning computers, both the computer and the monitor should be turned off but it is not necessary to unplug them.

____

T F 18. To clean a computer monitor, allow the monitor to cool for about ten minutes.

____

T F 19. A can of compressed air can be used to clean between the rows of keys on a computer keyboard.

____

T F 20. For daily cleaning of the keyboard, use a cloth dampened with soap solution.

____

Activity 12-7 • Matching

Directions

Review the care of metal and ceramic surfaces by completing the following exercise. Place the letter from **Group A** in the blank to the left of the characteristic that best describes it in **Group B**. Each letter may be used more than once.

Group A

A. brass/copper
B. ceramic
C. stainless steel

Group B

____ 1. These surfaces easily react to air, smoke, and body oils.

____ 2. These surfaces will stain but do not tarnish.

____ 3. Fingerprints and smudges that are not removed promptly will cause surfaces to tarnish.

____ 4. In restroom areas, these surfaces must be cleaned daily to present an attractive appearance, and control bacteria and odor.

____ 5. Abrasives are not suitable cleaning products as they can damage these surfaces.

Chapter 13

Planning Maintenance Tasks: Methods, Procedures, and Sequences

Chapter Focus

The following Essential Knowledge and Skills are discussed in Chapter 13:

6A	Analyze principles of time management and work-simplification when performing assigned tasks.
6B	Demonstrate how to function effectively when performing routine procedures and practices related to specific businesses.
7A	Develop guidelines for selecting equipment, supplies, and procedures for assigned tasks.
7B	Apply appropriate procedures while operating equipment and using tools and products in the performance of assigned tasks.
7D	Describe appropriate procedures for completing a variety of tasks involved in institutional maintenance.
7E	Demonstrate correct procedure for displaying flags.
8A	Exhibit work simplification techniques and prescribed procedures for specific cleaning tasks.
8C	Apply safe and sanitary techniques when handling soiled linens and disposable materials.
8D	Describe appropriate respect and care for personal property of guests and patients.

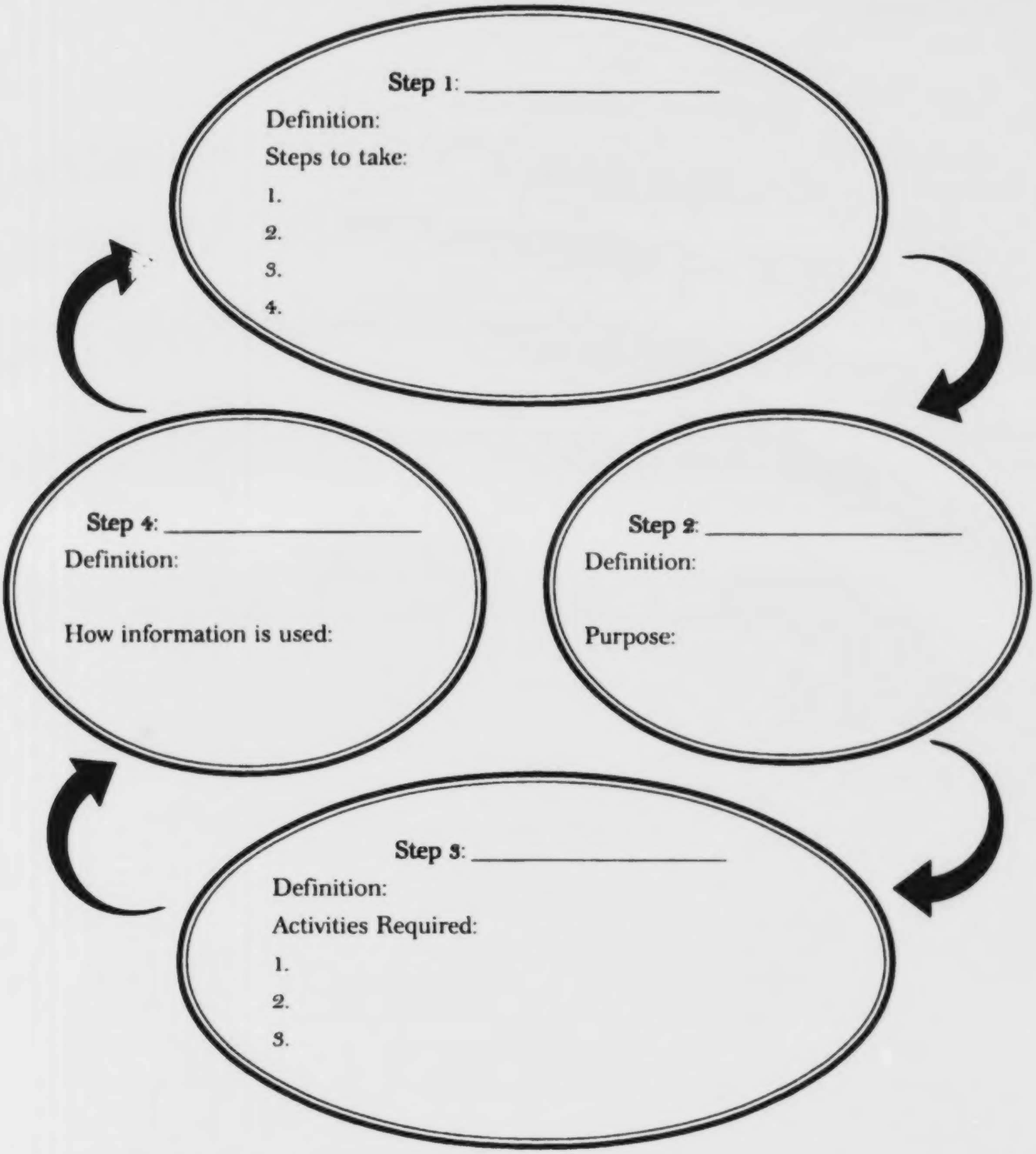
Introduction

Institutional maintenance management plans maintenance and housekeeping tasks to make certain that every area is cleaned according to company standards. Planning also helps to conserve energy and ensures efficient use of time. A well-managed maintenance department relies on the ability of the manager to organize work efficiently. Supervisors should understand how work is organized as it is their responsibility for seeing those tasks completed. The management process is a tool used to organize maintenance methods, procedures, and sequences.

Activity 13-1 • Diagram

Directions

The management process is a tool used to organize maintenance methods, procedures, and sequences. Complete the following diagram by entering the steps of the management process in the designated areas. Then, respond to each additional item by writing the appropriate information in the blanks provided.



Step 1: ____________________
Definition:
Steps to take:
1.
2.
3.
4.

Step 2: ____________________
Definition:

Purpose:

Step 3: ____________________
Definition:
Activities Required:
1.
2.
3.

Step 4: ____________________
Definition:

How information is used:

Activity 13-2 • Scenario

Directions

Review maintenance tasks in public areas by completing the following exercise. Read the scenario. Write your responses in the spaces provided or on a separate sheet of paper.

You are the cleaning supervisor of the institutional maintenance department at the city convention center. In preparation of the busy summer season, you are planning a staff meeting to review maintenance tasks for public areas. To help prepare for the staff meeting, respond to the following items.

1. List the areas known as public areas.
   1)
   2)
   3)
   4)

2. Since heavy traffic makes cleaning of public areas difficult, daily cleaning must be carefully planned and time devoted to policing the area. List five duties that are performed when policing an area.
   1)
   2)
   3)
   4)
   5)

3. A guest's first impression of the convention center is formed by the condition of the outside and inside entrances. Refer to Figure 13.1 in the text for help with answers. List the procedures for cleaning outside entrances.
   1)
   2)
   3)

   List the procedures for cleaning inside entrances.
   1)
   2)
   3)
   4)
   5)
   6)

4. Restrooms are another public area that must be kept clean and tidy.
   - Explain why this is important.
   - When using the spray and wipe technique for cleaning toilets, list the two products used for controlling bacteria.

5. Stairways, corridors, elevators, and escalators receive high amounts of traffic and maintenance employees are responsible for keeping these areas clean.
   - When cleaning stairways, explain when wet mopping is necessary.
   - Explain how to provide safe traffic surfaces when cleaning stairs and corridors.
   - Explain the best time to clean elevators and how often a thorough cleaning should be done.
   - Listed are the equipment and supplies needed for cleaning escalators. Next to each piece of equipment describe its use.
     1) vacuum
     2) stiff bristle brush
     3) degreaser
     4) metal polish
     5) soft cloths
     6) glass cleaner in spray bottle

Activity 13-3 • Identification

Directions

Review procedures and sequences for cleaning offices and classrooms by completing the following activity. Below are listed equipment and supplies, and procedures and sequences used in cleaning either offices or classrooms or both. Identify the items by using the key provided. Place the correct letter on the blank provided to the left of the item.

Key:
B = Both
C = Classroom
O = Office

Equipment and Supplies

____ 1. Trash container

____ 2. Cleaner/disinfectant solution in a spray bottle

____ 3. Carpet stain removal kit

____ 4. Restroom cleaning and restocking supplies

Procedures and Sequences

____ 5. Empty wastebaskets into trash container

____ 6. Empty pencil sharpeners into trash container

____ 7. Empty ashtrays into metal container

____ 8. Spot clean glass in doors, partitions, and insides of windows

____ 9. Dust mop hard-surface floors with a treated dust mop

____ 10. Clean, disinfect, and restock restroom

Activity 13-4 • Fill-in-the-Blank

Directions

Review cleaning procedures for hospitality institutions and health care facilities by completing the following activity. For each item below, write the word(s) in the blank provided that best completes the sentence.

1. Generally, hotel and resort management designates guestrooms into ____________________ for cleaning.

2. After cleaning the guestrooms requesting early service, vacant rooms and ____________________ are cleaned next.

3. In occupied rooms, the housekeeper should ask ____________________ when they would prefer to have cleaning services provided.

4. When cleaning rooms, the guests' ____________________ and ____________________ must be considered.

5. To address environmental concerns, some facilities stipulate that occupied rooms receive ____________________ cleaning only when requested by the guests.

6. In well-planned housekeeping procedures, all room furnishings, accessories, and supplies have assigned ____________________ and ____________________.

7. The once-around method for bed making decreases the number of times the housekeeper must travel around the bed thus saving both ____________________ and ____________________.

8. Due to the special operating procedures that are often necessary in health care facilities, ____________________ ____________________ may be responsible for cleaning patient rooms.

9. Special operating procedures include the special handling of linens so that transmission of ____________________ are lessened.

10. Patient rooms are cleaned in order to ____________________ and create an attractive and safe environment.

11. When a person has a communicable disease, a health care facility may ____________________ the person to prevent transmission of the disease to others.

12. Procedures for cleaning isolation rooms differ in that all furniture and mattress covers, floors, and walls and other surfaces are cleaned with a ____________________.

13. Environmental services employees should was their hands upon ____________________ and ____________________ isolation rooms.

14. An ideal place for many microorganisms to live and reproduce is provided by ____________________.

15. The health care employee's hands are the ____________________ source of contamination.

16. Carelessness in handwashing procedures can spread ____________________.

17. An employee can spread infection to other people as well as infecting ____________________.

18. Closing and tying a trash container bag and then placing it in a second heavy plastic bag that is closed securely is referred to as ____________________ ____________________.

19. Linen from an isolation room should be carefully removed from the bed with little extra movement of the linen so that ____________________ do not become ____________________.

20. The environmental services staff responsible for isolation room cleaning are usually required to wear disposable ____________________ ____________________.

Activity 13-5 • True/False

Directions

Read the following statements about cleaning procedures in foodservice facilities. If the statement is true, circle the letter T to the left of the statement. If the statement is false, circle the letter F. In the space provided, rewrite each false statement to make it true.

T F 1. Kitchens of foodservice facilities require a high degree of cleanliness and sanitation.

____

T F 2. Food serves as a medium for rapid growth of bacteria and rodents.

____

T F 3. On foodservice equipment, smooth surfaces allow appropriate sanitizing procedures to be effective.

____

T F 4. Foodservice equipment should be securely bolted to the floor.

____

T F 5. In most foodservice facilities, the environmental services perform the housekeeping and maintenance routines.

____

T F 6. Even when housekeeping procedures are performed properly, pests are sometimes transported into an institution on food packages and clean laundry packages.

____

T F 7. One way of controlling pests is to remove and dispose of all trash frequently and completely.

____

T F 8. An attractive dining atmosphere distracts from enjoyable dining.

____

T F 9. Managers should consider the cleaning and maintenance of the dining area as important as the foods being served.

____

T F 10. Cleaning procedures used to maintain dining areas vary depending on the amount of cleaning responsibility assumed by the foodservice personnel.

____

Activity 13-6 • Word Scramble

Directions

Unscramble the words in the following sentences to review exterior maintenance. Write the unscrambled word on the blank to the left of each statement.

________________ 1. Maintenance and housekeeping departments may be expected to perform X R E E T R O I cleaning tasks.

________________ 2. The first and most frequently viewed areas of an institution are the C L B P U I R D G U S N O.

________________ 3. The appearance of grounds can be spoiled by I R L E T T.

________________ 4. During bad weather or in areas receiving heavy traffic, A S K W L should be swept daily.

________________ 5. For most exterior sweeping chores, a S U P H M B O R O is used.

________________ 6. After a snowfall, sidewalks and entryways should be cleared R F S I T.

________________ 7. In winter, a great hazard posed to pedestrians is C E I.

________________ 8. To help keep salt residue from being tracked into other areas of a building, most institutions use L K W A – F O F mats.

________________ 9. Pools of oil left by vehicles are often a problem in K R P I A G N T S L O.

________________ 10. In some hospitality and health care facilities, the maintenance department may be responsible for cleaning and maintaining W M I I N S G M O L S O P and spas.

Activity 13-7 • Web Diagram

Directions

Often, institutional maintenance and housekeeping departments are responsible for U.S. flag display. Complete the following web diagram with the appropriate information. Write your responses in the spaces provided.

Flag protocol

Definition: ____

____

Rules for Displaying Flags

Exterior Flags
(list 3)

-
-
-

Interior Flags
(list 3)

-
-
-

Flag Disposal

Condition of flags no longer suitable for display

- worn
-
-
-

Proper method of disposal:

Chapter 14

Time Management and Work Simplification

Chapter Focus

The following Essential Knowledge and Skills are discussed in Chapter 14:

6A Analyze principles of time management and work-simplification when performing assigned tasks.
6C Predict the impact of effective time management and work simplification on the cost of institutional maintenance.
10D Evaluate the relationship of good physical and mental health to job success and achievement.

Introduction

Time is a limited resource that all people have in common. Time is considered the most valuable resource because it controls and limits how other resources are used. The method a person uses to manage or organize time is known as time management. Studying time management principles and work simplification techniques enables a person to make better use of time and accomplish more. People who accomplish many tasks in a day are usually good time managers.

Activity 14 -1 • Matching

Directions

Review information covered in time management, task analysis, goals and priorities, and work simplification by completing the following exercise. Place the letter of each term in the blank to the left of its correct definition. Each letter will be used once.

Terms

A. dovetailing
B. limited resource
C. maximum reach zone
D. motion study
E. normal reach zone
F. prioritize
G. procrastinate
H. task analysis
I. time robbers
J. work simplification

Descriptions

____ 1. An asset that cannot be increased

____ 2. This is often obtained by conducting a motion and time study

____ 3. The first step in task analysis

____ 4. Performing two or more tasks simultaneously

____ 5. Delays that keep a person from completing important tasks

____ 6. To put off doing tasks

____ 7. To list goals in the order of importance

____ 8. Determining the simplest and quickest method for accomplishing a task

____ 9. Circle formed by the length of the arms

____ 10. Circle reached by arms bent at the elbow

Activity 14-2 • Fill-in-the-Blank

Directions

Review time management and task analysis by completing the following activity. Read the following items. Write the word(s) that best completes the sentence in the space provided.

1. A limited resource that all people have in common is ____________________.

2. The method a person uses to manage or organize time is known as ____________________ ____________________.

3. An investment that allows a person to use time more effectively is ____________________.

4. Working with equipment and completing a task within certain time restraints is an example of using time as an integrative ____________________.

5. To be more skilled in planning the use of time, a person should identify ____________________ and set ____________________.

6. Planning work is a main purpose of a ____________________ and ____________________ study.

7. Establishing the most effective method of performing a task is the main purpose of a ____________________ study.

8. Eliminating unnecessary steps or combining steps or motions can result in greater ____________________ with less ____________________ .

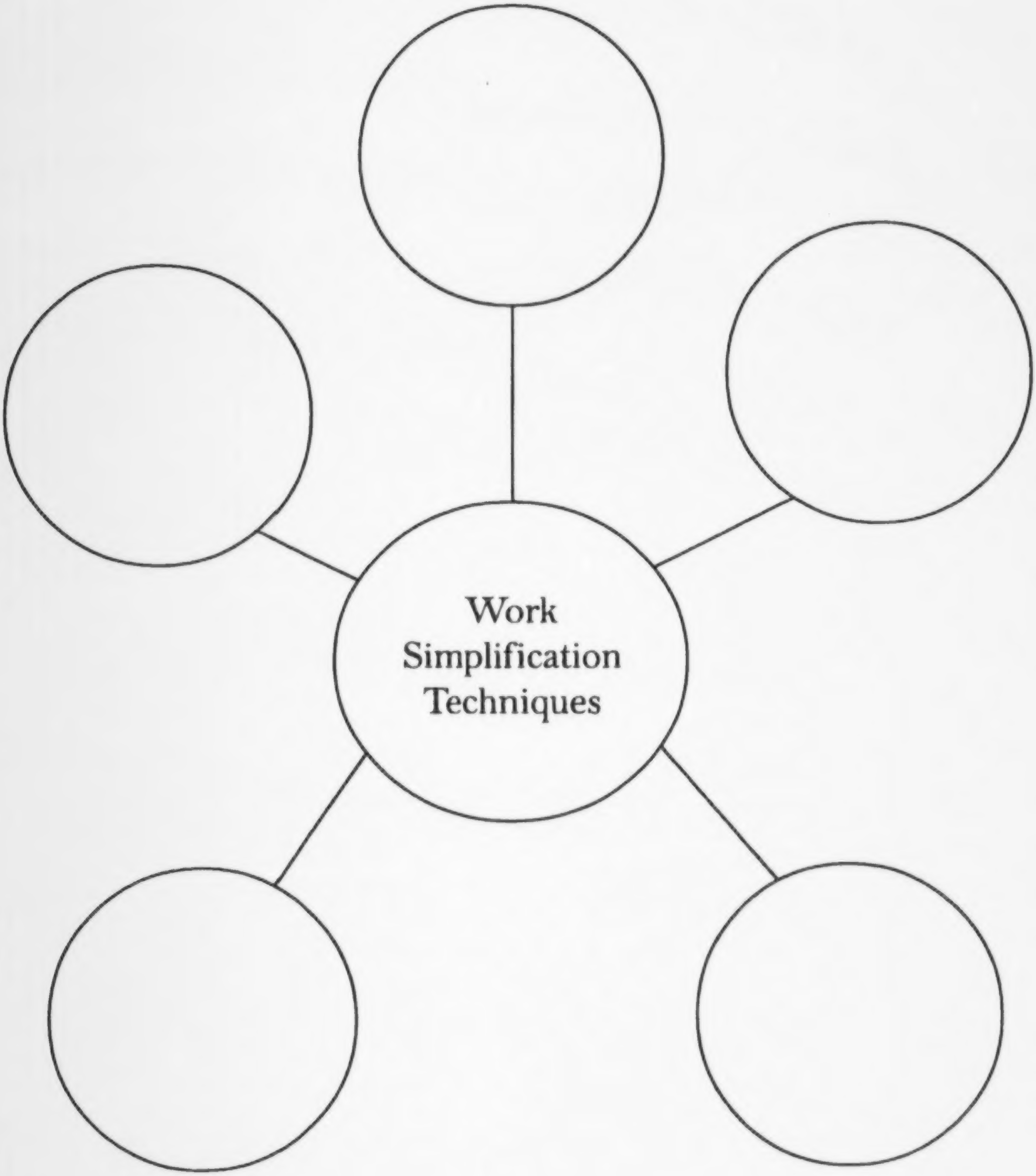
9. Performing two or more tasks simultaneously is referred to as ____________________.

10. A trained observer notes all actions and delays that occur during a task performance when conducting a ____________________ ____________________ observation.

Activity 14-3 • Web Diagram

Directions

Work simplification techniques are developed through organizing and economizing motion. Complete the following web diagram with examples of work simplification techniques.


Work Simplification Techniques

Activity 14-4 • True/False

Directions

Review your understanding of contributing factors to employee fatigue by completing the following activity. Read each statement. If the statement is true, circle the letter **T** to the left of the statement. If the statement is false, circle the letter **F**. In the space provided, rewrite each false statement to make it true.

T F 1. Fatigue is the decreased ability to function due to prolonged exertion or repeated stimulation.

____

T F 2. Fatigue on the job may be caused by poor working conditions.

____

T F 3. When tasks are repetitious, completed with no reward, or uninteresting, employees may become energized.

____

T F 4. Supervisors can reduce or eliminate boredom by offering variety or reward.

____

T F 5. Factors in an employee's personal life, such as lack of sleep and problems at home, may cause fatigue.

____

T F 6. Diet plays no role in fatigue.

____

T F 7. Employees suffering from fatigue will experience a drop in work performance due to lack of interest.

____

T F 8. An employee's attitude and preferred work style should be considered when job assignments are made.

____

Activity 14-4 • True/False, cont'd.

T F 9. Individuals who perform hard labor and heavy lifting may need to take longer breaks less often.

T F 10. A rest break should be taken whenever work productivity begins to decline or when an employee becomes fatigued.

Directions

Complete the following exercise to review task organization. Read the scenario below. Respond to the items by writing your answers in the spaces provided.

Scenario

You are the Executive Housekeeper at the River Walk Hotel and Casino. Part of your job description involves organizing housekeeping tasks.

A. There are six general guidelines that you observe when organizing housekeeping tasks. List the five of the six guidelines.

1.
2.
3.
4.
5.

B. Your management responsibilities also include training employees in procedures that simplify work. List five general rules provided to your employees in helping to reduce fatigue and increase work production.

1.
2.
3.
4.
5.

C. At a recent training seminar for housekeeping managers and supervisors, you were provided with guidelines for conserving energy. List five of the guidelines that you plan to present to your housekeeping staff. Provide a brief description of how the guideline conserves energy.

1. Guideline:

   Description:

2. Guideline:

   Description:

3.Guideline:

Description:

4.Guideline:

Description:

5.Guideline:

Description:

Chapter 15

Disinfection Techniques

Chapter Focus

The following Essential Knowledge and Skills are discussed in Chapter 15:

4A Evaluate potential safety hazards in the workplace.
4B Practice procedures that contribute to safe working conditions.
4C Apply safety and sanitation procedures when performing assigned tasks.
4D Analyze government regulations impacting safety and sanitation practices in institutional maintenance operations.
5A Demonstrate safe and responsible storage, use, and disposal of materials.
5B Describe environmental issues specific to an assigned workplace.
7A Develop guidelines for selecting equipment, supplies, and procedures for assigned tasks.
7B Apply appropriate procedures while operating equipment and using tools and products in the performance of assigned tasks.
7F Predict institutional maintenance cost variances based on material, surface, and furnishings considerations.

Introduction

Many people use institutional facilities each day. Therefore, the spread of disease is likely. In order to prevent the spread of disease, the institutional maintenance department must maintain a disease-free environment. Controlling infection and contamination is a major responsibility of the maintenance staff. Institutional maintenance employees are trained in such areas as infection control, odor control techniques, prevention of insect and rodent infestation, and proper waste disposal.

Activity 15-1 • True/False

Directions

Read the following statements about causes of infection. If the statement is true, circle the letter **T** to the left of the statement. If the statement is false, circle the letter **F**. In the space provided, rewrite each false statement to make it true.

T F 1. Communicable diseases are illnesses that can be transferred from one person to another through direct or indirect contact.

T F 2. People who are not ill can not spread the germs causing communicable diseases.

T F 3. The hands and clothing are common carriers of germs if proper sanitation methods are not followed.

T F 4. Illness occurs when microorganisms that cause disease enter the body and multiply.

T F 5. Microorganisms are living plants or animals that can be seen without the aid of a microscope.

T F 6. The microorganisms that cause disease are called pathogens.

T F 7. Toxins are common types of pathogens.

T F 8. Bacteria are single-celled plants that live in soil, air, water, contaminated waste, and in the bodies of other living things.

Activity 15-1 • True/False, cont'd.

T F 9. Bacteria can be transmitted only through contact with contaminated surfaces.

____

T F 10. Viruses are the largest pathogens.

____

T F 11. Fungi are plants that live by feeding off the tissues of living organisms or dead organic material.

____

T F 12. Bacteria and viruses are types of fungi.

____

T F 13. Pathogens need food, moisture, warmth, and darkness in order to live and reproduce.

____

T F 14. Most bacteria thrive at temperatures above 170°.

____

T F 15. An autoclave is a container that uses extremely hot steam under pressure to kill pathogens.

____

T F 16. When bacteria are exposed to light, they become very active and multiply quickly.

____

T F 17. Bacteria most often attack the human body as a source for needs because the human body can supply food, moisture, warmth, and darkness.

____

Activity 15-1 • True/False, cont'd.

T F 18. Pathogens enter the body through openings such as eyes, nose, mouth, and broken places in the skin.

____

T F 19. Coughing and sneezing release pathogens in droplets of mucous or saliva.

____

T F 20. Public drinking fountains, public restrooms, and bar soap are free from bacteria.

____

T F 21. Since they can travel through the air, improper sweeping and mopping techniques can spread pathogens throughout an entire building.

____

T F 22. Daily vacuuming does not remove pathogens.

____

T F 23. H.E.P.A. filters are used in hospitals, computer rooms, and precision assembly areas.

____

T F 24. Some pathogens produce spores that are sensitive to extreme temperatures and strong chemicals.

____

T F 25. Shell-covered organisms called endospores are highly sensitive to adverse chemical agents.

____

Directions

In order to control infection and contamination, proper disinfection techniques must be used. The institutional maintenance staff may choose from a variety of disinfectants. Complete the box below by supplying a description, one advantage, and one disadvantage for each of the types of disinfectants listed. Write your responses in the spaces provided.

Types of Disinfectants

Type	Description	Advantages	Disadvantages
Hypochlorites			
Iodophor			
Iodine			
Natural Phenols			
Natural Pine Oil			
Quaternary Ammonium Compounds (QUATS)			
Synthetic Phenols			

Activity 15-3 • Fill-in-the-Blank

Directions

Review the information on odors by completing the following activity. For each item below, write the word(s) in the blank provided that best completes the sentence.

1. Odors in restrooms, trash receptacles, and other areas are the result of ______________________ ______________________.

2. Odors in the areas listed in #1 are the result of ______________________ decomposing ______________________ ______________________.

3. Matter that is derived from living organisms is called ______________________ matter.

4. A residual odor is an odor caused by decomposing ______________________ ______________________.

5. Air fresheners and deodorizers ______________________ residual odors rather than ______________________ them.

6. Thorough cleaning with a ______________________ and ______________________ solution helps eliminate residual odors.

7. Before an area can be disinfected, it must be ______________________.

8. Odors produced by cooking and smoking are called ______________________ odors.

9. Odor neutralizers claim to ______________________ odor-causing molecules.

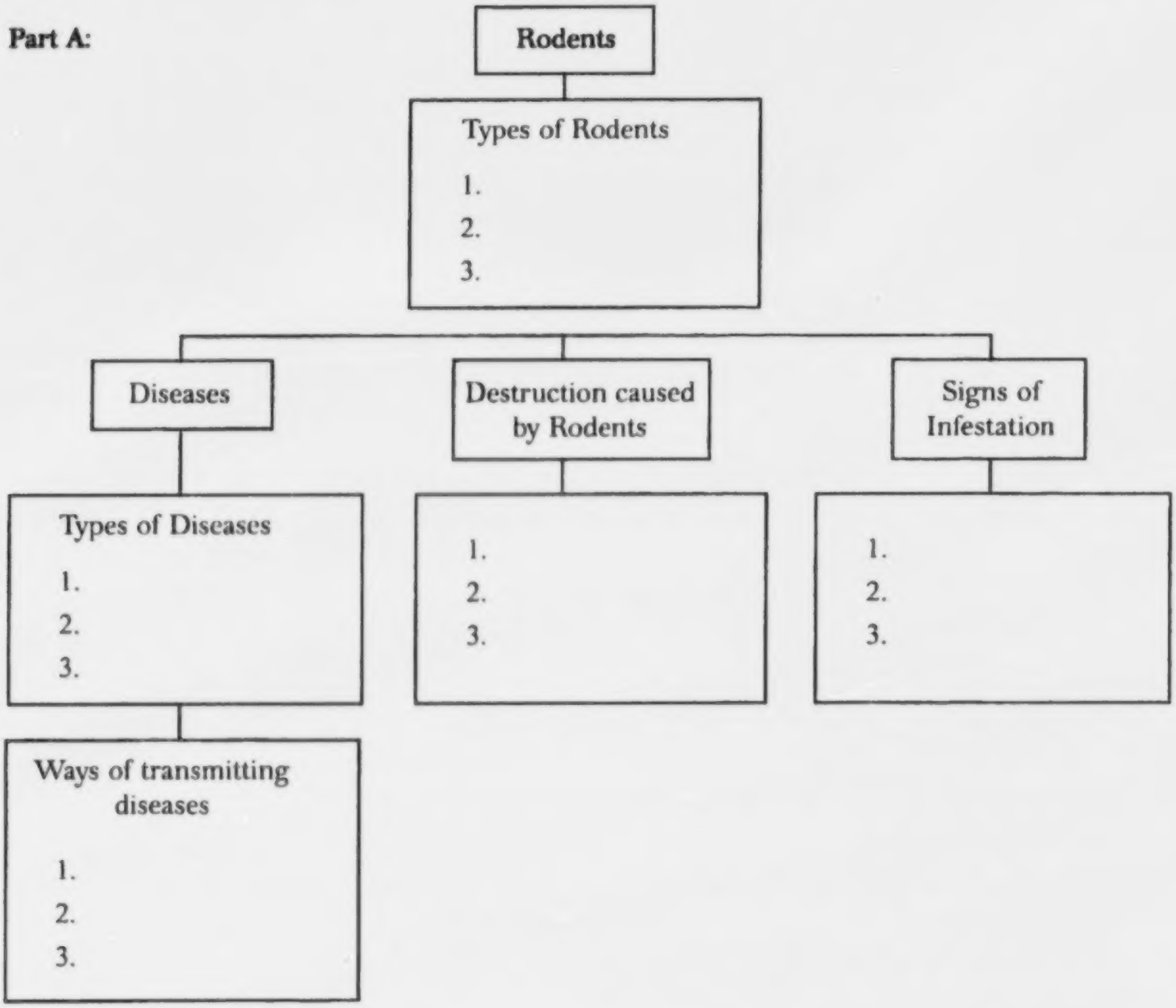
10. Neutralizers can be combined with ______________________ or ______________________ ______________________ to eliminate odor molecules that settle on hard surfaces.

Activity 15-4 • Web Diagram

Directions

Prevention of rodent infestation is an important responsibility of a housekeeping department. Complete the following web diagram by supplying the requested information. Write your responses in the spaces provided.

Part A:



Rodents

Types of Rodents
1.
2.
3.

Diseases

Types of Diseases
1.
2.
3.

Ways of transmitting diseases
1.
2.
3.

Destruction caused by Rodents
1.
2.
3.

Signs of Infestation
1.
2.
3.

Part B:

Provide five types of control and prevention methods.

1.
2.
3.
4.
5.

Activity 15-5 • Short Answer

Directions

Review prevention of insect infestation by completing the following exercise. Place the letter of each insect in the blank to the left of the description that best identifies it. Then, in the space provided, write one infestation control method. Do not use the same control method more than once.

Insects

A. Ants
B. Cockroaches
C. Flies
D. Lice
E. Mosquitoes

Description

____ 1. Lay their eggs in filth, rotting food, and human and animal waste.
Control method: ____________________

____ 2. Breed in stagnant water and drains.
Control method: ____________________

____ 3. Often brought into institutions on delivery packages.
Control method: ____________________

____ 4. Destroy food and crawl over filth.
Control method: ____________________

____ 5. Wingless parasites that live on animals and humans.
Control method: ____________________

Activity 15-6 • Case Studies

Directions

Complete the following exercise to review waste disposal. Read the case studies below and write your response in the blanks provided.

Case Study 1

Today is Jerod's first day at his new job working in the institutional maintenance department of the local shopping mall. While working with the custodian lead worker, Jerod is reminded that to prevent the spread of infection, maintenance employees must dispose of waste properly. List five guidelines to observe when disposing of waste.

1.
2.
3.
4.
5.

Case Study 2

You are a safety inspector with the Occupational Safety and Health Act. The owner of an independent waste management company has asked you to provide guidelines for disposal of hazardous substances. List the five guidelines that you will provide the owner.

1.
2.
3.
4.
5.

Case Study 3

Leslee works as the risk assessment person in environmental services at the county hospital. She knows that housekeeping personnel must be properly trained in the cleanup of body fluid spills in order to prevent the spread of infectious disease. One method used to reduce risk is to observe universal precautions developed by the Center for Disease Control. Explain the universal precautions method.

Activity 15-6 • Case Studies, cont'd.

Leslee has decided to post the eleven steps for effectively removing body fluid spills. List the steps.

1.

2.

3.

4.

5.

6.

7.

8.

9.

10.

11.

Chapter 16

Entering and Exiting Cleaning Areas

Chapter Focus

The following Essential Knowledge and Skills are discussed in Chapter 16:

1C Adhere to company policies and procedures.

4B Practice procedures that contribute to safe working conditions.

7A Develop guidelines for selecting equipment, supplies, and procedures for assigned tasks.

7D Describe the impact of technology on equipment, supplies, and procedures utilized in the industry.

8B Determine appropriate responses in accommodating guest and patient requests.

8D Describe appropriate respect and care for personal property of guests and patients.

8E Apply recommended procedures for entering and exiting guest and patient rooms.

Introduction

It is important for housekeeping personnel to enter and exit cleaning areas according to established procedures. Proper entering and exiting ensure employee safety, guest privacy, and patient safety and privacy. By following established entering procedures, housekeepers and institutional maintenance employees protect themselves from harm by guests or unwelcome intruders. Additionally, these procedures protect the privacy of guests, patients, and tenants.

Activity 16-1 • Scenario

Directions

It is important for housekeeping personnel in hospitality institutions to enter and exit cleaning areas according to established procedures. Complete the following exercise by reading the scenario. Respond to the items by writing your answers in the spaces provided.

You are the Housekeeping Supervisor at the Saddleback Mountain Inn. It is your responsibility to ensure that the housekeeping staff is properly trained as to the standard operating procedures for entering and exiting guestrooms. Today, you are conducting a training orientation for new employees. Provide the new housekeepers with the professional procedure to follow when entering to clean a guestroom.

1.
2.
3.
4.
5.
6.

When entering a occupied guestroom, explain the procedures the housekeeper should take when a guest is discovered

7. sleeping or showering:
8. awake:
9. in a room that should be vacant:

After entering a vacant room to clean, the housekeeper should prop open the door to the room and block the doorway with the housekeeping cart. Explain why this is done.

10.

Additionally, the open side of the housekeeping cart should face the room. Explain what two purposes this serves:

11.
12.

The wheels of the housekeeping cart should be locked while the room is being cleaned.

13. Explain why this is a good procedure to follow.

If a guest arrives while the housekeeper is cleaning a room, there are four options from which a housekeeper may choose in handling the situation. List the four options.

14.
15.
16.
17.

List three duties that should be performed when exiting a cleaned guestroom.

18.
19.
20.

Activity 16-2 • Analysis

Directions

Entering and exiting patient rooms in health care institutions differ from guestrooms in hospitality facilities in that patient rooms are often occupied, and the housekeeper must clean the rooms while patients are present. Review the proper procedures for entering occupied patient rooms by completing the following exercise. Read the situation as described in the following paragraph. In the spaces provided, describe four entering procedures that you think should be observed to ensure the patient's comfort.

Juan works in the housekeeping department of the Westlake Health Center. Today, he is cleaning occupied patient rooms. He enters room 218 by pushing the housekeeping cart into the room and positioning it beside the patient's bed. The patient is watching television so Juan does not speak to him. As he begins the cleaning duties, he realizes that he has forgotten to supply the cart with disinfectant, so he leaves the patient room to go to the storeroom. After cleaning and disinfecting, Juan discovers that he has no broom. Again, he leaves the room. After sweeping the floor, he can find no trash bags – another trip to the storeroom. When he returns, the patient has turned off the television and strikes up a conversation. For the next forty-five minutes, Juan talks with the patient.

Entering procedures that Jaun should observe:

1.

2.

3.

4.

Activity 16-3 • Short Answer

Directions

To review procedures for situations when patients refuse housekeeping services and the use of protective clothing in health care institutions, complete the following exercise. Use the spaces provided to record your answers.

1. What is the correct procedure for a housekeeper to follow when a patient refuses housekeeping services?

2. What three methods might a supervisor use when dealing with a patient who refuses housekeeping services?
    1)
    2)
    3)

3. What types of protective clothing are often required when cleaning an isolation room or surgical area? List four.
    1)
    2)
    3)
    4)

4. What are two reasons health care institutions require the wearing of protective clothing?
    1)
    2)

Activity 16-4 • Sequencing

Directions

Listed below are steps that should be taken when entering a public restroom for cleaning. However, the steps are out of sequence. Read the items and then place the steps in the correct order from #1 to #5 using the blanks provided to the left of the item.

_____ Post signs indicating that the area is being cleaned and unavailable for public use

_____ Knock on the restroom door and say "Housekeeping" loudly

_____ Check the appearance of the restroom to make sure no cleaning tasks were overlooked

_____ Remove the caution signs and exit the area

_____ Open the restroom door and block it with a bar or chair

Activity 16-5 • Fill-in-the-Blank

Directions

Review housekeeping reports and records by completing the following activity. For each item below, write the word(s) in the blank provided that best completes the sentence.

1. To determine if the rooms assigned to be cleaned or the rooms reported as ready-to-rent are vacant, a ____________________ ____________________ ____________________ is performed.

2. Room cleaning assignments are made by the____________________ ____________________.

3. If a room thought to be vacant is occupied, the ____________________ ____________________ should be notified immediately.

4. When cleaning guestrooms, the housekeeper must consider the wishes of the ____________________ in the facility.

5. Items left in guest and patient rooms should be recorded on the ____________________ ____________________ report.

6. A written record that includes the date, the location where the items are found, and descriptions of found items is a ____________________ ____________________ ____________________ ____________________.

7. For reporting lost and found items, the housekeeper should follow ____________________ ____________________ ____________________.

8. A list of occupied and vacant rooms in an assigned area, the status of the rooms, the condition in which rooms were found, and noted damages and items needed or missing from rooms can be found in the ____________________ ____________________.

9. A report used to record the count of various items of value kept on hand is referred to as an ____________________ report.

10. To request or order additional supplies or materials, a ____________________ ____________________ ____________________ requisition should be submitted to a supervisor.

Activity 16-6 • True/False

Directions

Read the following statements about policies for keys control. If the statement is true, circle the letter **T** to the left of the statement. If the statement is false, circle the letter **F**. In the space provided, rewrite each false statement to make it true.

T F 1. Institutional maintenance departments are responsible for many keys including emergency keys and master keys.

____

T F 2. In some institutions, keys are kept in locked storage cabinets or at the front desk where they are checked out to housekeeping personnel.

____

T F 3. In some facilities, keys may be kept in the linen room or the executive housekeeping office.

____

T F 4. Standard operating procedures may require security guards to sign for keys each day and distribute them to housekeepers.

____

T F 5. Keys must be accounted for at all times.

____

T F 6. Whenever employees leave the property, even for meal breaks, keys are signed in on a lost and found log.

____

T F 7. At the end of a shift, housekeepers return room keys to the front desk.

____

T F 8. The loss of a master key may result in termination, especially if negligence is determined.

____

Activity 16-6 • True/False, cont'd.

T F 9. It is the duty of the floor supervisor or executive housekeeper to retrieve room keys left behind by guests and return them to the front desk.

____

T F 10. Lost, misplaced, or stolen guestroom keys pose a threat to guest security.

____

Chapter 17

Laundry Procedures and Equipment

Chapter Focus

The following Essential Knowledge and Skills are discussed in Chapter 17:

5B Describe environmental issues specific to an assigned workplace.
6A Analyze principles of time management and work-simplification when performing assigned tasks.
7A Develop guidelines for selecting equipment, supplies, and procedures for assigned tasks.
7B Describe the impact of technology on equipment and using tools and product in the performance of assigned tasks.
9A Perform appropriate laundry tasks according to industry standards.
9B Compare a variety of laundry products and their suitability for specific uses.
9C Explain the importance of pre-laundry procedures.
9D Differentiate the functions of thermal, mechanical, and chemical energy in laundry operations.
9E Describe procedures for appropriately folding, storing, mending, and recycling lines.
9F Describe procedures for handling and cleaning contaminated linens.

Introduction

The laundry department of an institution serves patients, guests, and staff by providing an adequate supply of clean and sanitized linen. Institutions may have in-house laundries, or they may rent linens through a commercial company.

Executive housekeepers and managers of in-house laundry departments are responsible for training laundry room attendants in the correct use of laundry products, in being able to identify different types of fabrics and apply the appropriate care, and in selecting commercial laundry equipment. Additionally, supervisors in health care facilities carefully monitor the handling of soiled linens to prevent the spread of disease caused by cross contamination.

Activity 17-1 • Writing

Directions

The goals of in-house laundry departments vary among institutions. Therefore, the procedures performed in laundries differ. Write a paragraph explaining ways in which a hospitality in-house laundry department may differ from a health care in-house laundry department. In writing the essay, you may use the space provided, a separate sheet of paper, or a word processing program.

Activity 17-2 • Short Answer

Directions

Review laundry products and detergents by completing the following activity. Use the spaces provided to record your answers.

1. In addition to cleaning, what other results does laundering achieve? List four.
   1)
   2)
   3)
   4)

2. What types of information might a laundry product supplier provide? List three.
   1)
   2)
   3)

3. Why is it important for each laundry room attendant to be thoroughly trained in the correct use of laundry products?

4. A. What is a pH level?
   B. Explain the different pH values (seven, zero to seven, and seven to fourteen).

   C. What effects can be caused by the pH level?

   D. What is one way the pH level can be determined?

Activity 17-2 • Short Answer, cont'd.

5. What is detergent?

6. How do enzymes function in the laundering process?

7. The amount of detergent used in the washing process is dependent upon what factor?

8. How does the use of ozone affect the washing process?

9. How do the following chemicals affect the washing process?
   A. surfactants:

   B. suds control agents:

   C. builders:

10. Why have phosphates been banned in most geographical areas? Explain your answer.

Activity 17-3 • Matching

Directions

Review laundry aids by completing the following exercise. Place the letter of each laundry aid in the blank to the left of the description that best identifies it.

Laundry Aids

A. breaks
B. sours
C. tints and dyes

Descriptions

____ 1. These may contain bluing and whiteners

____ 2. Heavy-duty alkaline compounds designed to break soils in the soak cycle of the washing process

____ 3. Sometimes used to restore color to fading table linens

____ 4. These compounds are used primarily for heavily soiled loads

____ 5. These are used to lower the pH level of the water

Activity 17-4 • Web Diagram

Directions

Bleaches are used in the washing process for a variety of reasons. Review the information on bleaches by completing the web diagram below. In the first section, provide a definition for bleaches. Then, identify the two types of bleaches by writing the names in the top two boxes. Below each type of bleach, provide three distinguishing characteristics.

Bleach
Definition: ______________________________

Type of Bleach
____

Type of Bleach
____

Characteristics
1. ______________________
2. ______________________
3. ______________________

Characteristics
1. ______________________
2. ______________________
3. ______________________

Activity 17-5 • Word Choice

Directions

Review the use of fabric softeners, starches, disinfectants, and ammonia in the laundering process by completing the following activity. Read each statement. Circle the word in parenthesis that **best** completes the sentence.

1. A product that is used during the laundry process to give laundry a soft, smooth feeling is a(n) (ammonia, disinfectant, fabric softener).

2. The product that works by coating yarn fibers with a substance that makes them smooth is a(n) (disinfectant, fabric softener, starch).

3. The product that adds a pleasing fragrance to laundered articles is a(n) (ammonia, disinfectant, fabric softener).

4. The product used to give body to fabrics is a(n) (ammonia, disinfectant, starch).

5. The product that is available as a liquid, a powder, or a spray is a(n) (disinfectant, fabric softener, starch).

6. In commercial laundries, a special washer is used for applying (ammonia, disinfectant, starch).

7. In order to protect individuals from infection, many institutional laundries routinely use (ammonias, disinfectants, starches).

8. Liquid chlorine bleach is the most common (disinfectant, fabric softener, starch) used to treat laundry.

9. The product that can be added to the washing process with the detergent, during the rinse, or with the fabric softener is (ammonia, disinfectant, starch).

10. The product that can assist detergent in removing grease and oily dirt is (ammonia, disinfectant, starch).

Activity 17-6 • Case Studies

Directions

Review pre-laundry procedures by completing the following activity. Read the case studies below. Then respond to each of the items by writing your answer in the spaces provided.

Case Study 1

Hospitals and health care institutions carefully monitor the handling of soiled linens to prevent the spread of diseases caused by cross contamination. As the laundry supervisor at the Community Hospital, it is your responsibility to ensure the safe handling of contaminated laundry. List the six guidelines that you expect your staff to follow when handling contaminated laundry.

1.
2.
3.
4.
5.
6.

Case Study 2

Sorting is the process of separating items to be washed into groups that can be washed together safely. In the laundry room, the sorting method should help the work proceed quickly and efficiently. As the laundry supervisor at the Admiral Fell Inn, you are responsible for training your staff in using a quick and efficient sorting process.

A. Provide five examples of sorting linens according to the type of handling required.
   1.
   2.
   3.
   4.
   5.

B. Provide five general guidelines your staff should observe when sorting laundry.
   1.
   2.
   3.
   4.
   5.

Case Study 3

It is important for laundry attendants to be able to identify different types of fabrics in order to obtain effective results when washing. Permanent labels in uniforms and on linens provide care instructions and information regarding fiber content, fabric finishes, shrinkage control, colorfastness, and special precautions. As the laundry supervisor, you want to ensure that your staff is knowledgeable in the types of fabrics commonly found in institutions. Thereby, you require that everyone that takes this short quiz. For each fabric listed, provide three characteristics:

A. cotton:

1.
2.
3.

B. polyester:

1.
2.
3.

C. polyester/cotton blends:

1.
2.
3.

Case Study 4

A finish is a treatment or process used to improve different fabric characteristics. It is important to identify types of finishes since they may affect how an item should be laundered. When conducting a new employee training session, you review the different fabric finishes found in institutions. For each of the fabric finishes listed below, provide one characteristic for that finish.

A. permanent-press finish: ______________________________

B. soil-release finish: ______________________________

C. stain-repellent finish: ______________________________

D. flame-resistant finish: ______________________________

E. shrink-resistant finish: ______________________________

Activity 17-7 • Application

Directions

Apply knowledge of stain removal for washable fabrics by completing the following activity. For each type of stain listed, provide the appropriate removal method.

Stain	Removal
1. beverages – soft drinks	1.
2. blood	2.
3. candle wax	3.
4. chewing gum	4.
5. chocolate	5.
6. coffee	6.
7. fabric softener	7.
8. ink – ballpoint	8.
9. laundry product	9.
10. yellowing	10.

Activity 17-8 • Identification

Directions

Laundry attendants often encounter problems when performing laundry procedures. Complete the box below with the missing information. For each common laundry problem, provide one probable cause.

Common Laundry Problems	Cause
1. greyed fabric	1.
2. shrinking	2.
3. stiffness of fabrics	3.
4. wrinkling of permanent – press fabric	4.
5. yellowed fabric	5.

Activity 17-9 • Fill-in-the-Blank

Directions

Review the washing process by completing the following activity. For each item below, write the word(s) in the blank provided that best completes the sentence.

1. The washing action of the washing machine supplies ____________________ energy.

2. Bleach, detergents, and other additives supply ____________________ energy.

3. Warm or hot water supplies ____________________ energy.

4. If one source of energy is ____________________, one of the other sources of energy must be ____________________ to maintain the same level of laundering performance.

5. Agitation is necessary for cleaning, but too much agitation can result in ____________________ both fiber and item construction.

6. Whether the agitation speed should be normal or slow and gentle is determined by the ____________________ of fabrics being washed.

7. Pretreating, soaking, and adding more bleach or detergent can increase ____________________ energy.

8. Removing phosphates ____________________ the effectiveness of detergents.

9. The first step in cleaning is ____________________.

10. The product that makes the water spread out evenly and allows the cleaning solution to get in between the soil and the surface is known as a(n) ____________________.

11. Chemicals that break fats, oils, and greasy soils into tiny particles so they can be easily removed from the surface and kept suspended in the wash solution until rinsed away are ____________________.

12. Solid soil can be gradually removed by soaking in ____________________ and ____________________.

13. Soaking is very slow but can be speeded up by mechanical action and the use of ____________________ that prevent the dirt from being redeposited.

14. The chemical reaction that overcomes the effects of the minerals in water is known as ____________________.

15. The soak cycle, wash cycle, rinse cycle, and extract cycle all make up the ____________________ program.

16. The break is the first cycle, or the ____________________ cycle.

17. Breaks are run in cycles lasting from ____________________ to ____________________ minutes.

18. A properly executed break will remove approximately____________________ percent of the soil from fabrics.

19. The effectiveness of a bleach cycle depends on the ____________________ ____________________ and the level of ____________________.

20. Rinsing any longer than ____________________ minutes wastes time.

21. Water temperature helps to determine how ____________________ and how ____________________ fabrics become during washing.

22. For proper laundering performance, a water heater should be set to deliver ____________________ °F water at the tap.

23. Hot water is essential in removing ____________________ and ____________________ soils.

24. Colored fabrics, lightly soiled fabrics, permanent press fabrics, and noncolorfast fabrics should be washed in ____________________ water.

25. Cold water does not clean as well as hot water, but it reduces the ____________________ and ____________________ of fabrics and saves energy.

Activity 17-10 • Word Scramble

Directions

Unscramble the words in the following sentences to review laundry equipment. Write the unscrambled word on the blank to the left of each statement.

1. ____________ Front-loading washing machines have extensions on the inside of the inner tub that help move laundry as it tumbles. These extensions are called LASFFBE.

2. ____________ An automatic series of steps that a washer goes through in order to wash a load effectively is a(n) YLCCE.

3. ____________ The process of spinning, draining, or squeezing water out of laundry is referred to as REXTIATONC.

4. ____________ A process of evaporation that occurs naturally is RGDNIY.

5. ____________ A mechanical device that controls temperature and rate of airflow is a(n) MCORECMLAI DEYRR.

6. ____________ A device used to regulate temperature to a certain level is a(n) RTAMHETSOT.

7. ____________ A control dial marked in minutes and used to prevent overdrying of laundry is a(n) IREMT.

8. ____________ Large commercial ironing machines that use heated rollers to press flat linens, such as sheets and table linens, are called ALENGMS.

9. ____________ A device that allows one person to neatly fold linens is a(n) ENNLI LDREOF.

10. ____________ Sinks that are needed whenever strong chemical formulas are used for spot and stain removal are ASOK NKSIS.

Activity 17-11 • Short Answer

Directions

Review laundry equipment used in institutions by completing the following exercise. Use the spaces provided to record your answers.

1. What are the two main differences between institutional laundry equipment and home laundry equipment?
   1)
   2)

2. Commercial washers clean laundry by a combination of what two factors?
   1)
   2)

3. How do front-loading washers use the principle of gravity to clean laundry? Briefly explain how a front loader operates.

4. What are two basic ways that washers measure the amount of water filling the tub?
   1)
   2)

5. What five factors should be considered when choosing a wash cycle?
   1)
   2)
   3)
   4)
   5)

6. What process occurs at the end of the permanent press cycle?

Activity 17-11 • Short Answer, cont'd.

7. Although the cycles of washing machines differ, what six conditions do all washers control?
   1)
   2)
   3)
   4)
   5)
   6)

8. According to the text, computerized commercial washers can be programmed to handle what two laundry procedures?
   1)
   2)

9. What are the ten guidelines for using a commercial washer?
   1)
   2)
   3)
   4)
   5)
   6)
   7)
   8)
   9)
   10)

10. What are four safety features for commercial washers? Explain how the feature operates.
    1)

    2)

    3)

    4)

Activity 17-11 • Short Answer, cont'd.

11. What are three advantages of using a commercial dryer?
    1)
    2)
    3)

    three disadvantages?
    1)
    2)
    3)

12. What four factors determine the length of time required to dry laundry?
    1)
    2)
    3)
    4)

13. What are three results that might occur from overdrying laundry?
    1)
    2)
    3)

14. What are five guidelines for effective use of a commercial dryer?
    1)
    2)
    3)
    4)
    5)

15. What are the four safety features for commercial dryers?
    1)
    2)
    3)
    4)

Activity 17-11 • Short Answer, cont'd.

16. In addition to pressing linens, what other service do mangles offer?

17. Laundry hampers are used for what three purposes?
    1)
    2)
    3)

18. Why should clean, dry linen not be placed in a hamper that was used to hold soiled linen?

19. Before cleaning or repairing laundry equipment, what should attendants do?

20. What are five guidelines that are helpful in properly maintaining laundry equipment?
    1)
    2)
    3)
    4)
    5)

Chapter 18

Proper Care and Handling of Linens

Chapter Focus

The following Essential Knowledge and Skills are discussed in Chapter 18:

- 4A Apply safety and sanitation procedures when performing assigned tasks.
- 7A Develop guidelines for selecting equipment, supplies, and procedures for assigned tasks.
- 7B Describe the impact of technology on equipment and using tools and products in the performance of assigned tasks.
- 7C Describe the impact of technology on equipment, supplies, and procedures utilized in the industry.
- 7F Predict institutional maintenance cost variances based on material, surface, and furnishings considerations.
- 8C Apply safe and sanitary techniques when handling soiled linens and disposable materials.
- 9A Perform appropriate laundry tasks according to industry standards.
- 9E Describe procedures for appropriately folding, storing, mending, and recycling linens.
- 9F Describe procedures for handling and cleaning contaminated linens.

Introduction

A variety of linens are used in institutions. Linen items most frequently handled by housekeepers include bed linens, bath linens, table linens, and clothing, such as uniforms. It is important for housekeepers and laundry personnel to care for and handle linens properly since the appearance of linens may affect the reputation of an institution.

Additionally, linens represent a major investment. In order to avoid spending an excessive amount of money on linens, an institution relies on the housekeeping staff to properly care for linens and control linen loss. It is the responsibility of housekeeping and laundry personnel to follow proper procedures for folding, storing, handling, and repairing linens.

BEST COPY AVAILABLE

Activity 18-1 • Short Answer

Directions

It is important for housekeepers and laundry personnel to care for and handle linens properly since the appearance of linens may affect the reputation of an institution. Review information regarding the linen room by completing the following exercise. Use the spaces provided to record your answers.

1. What types of linen are most frequently handled by housekeepers? Name three.
   1)
   2)
   3)

2. What is the difference between a central linen room and a satellite linen room?

3. What purpose is served by restricting the linen rooms to authorized personnel only?

4. What four purpose does the linen room serve?
   1)
   2)
   3)
   4)

5. Management of a linen room entails what four functions?
   1)
   2)
   3)
   4)

Activity 18-1 • Short Answer, cont'd.

6. What are six objectives of a linen room supervisor?
   1)
   2)
   3)
   4)
   5)
   6)

7. What is one job function of a linen room attendant?

8. Aside from linens, what other items might be found in the linen room? Name three.
   1)
   2)
   3)

9. What are two reasons why smoking is prohibited in linen rooms?
   1)
   2)

10. Since lint and dust from fabrics in a linen room can irritate the respiratory systems of employees, what cleaning procedures should be followed each day?

Activity 18-2 • Case Studies

Directions

Review folding and storing linen by completing the following activity. Read the case studies below. Then, respond to each of the items by writing your answers in the spaces provided.

Case Study 1

Properly training laundry attendants in the procedures for folding linens is part of your responsibility as laundry supervisor. Therefore, once a month, you hold mandatory training workshops for new hires. Today, you are reviewing the guidelines to observe when folding linens. Describe the five guidelines that employees should follow when folding linen.

1.
2.
3.
4.
5.

Case Study 2

The Zip Inn is preparing for a grand opening in less than three weeks. As the laundry manager for the Inn, Julio wants to make certain that all laundry attendants are trained in the proper storing of institutional linens. Therefore, he has decided to conduct an on-site training seminar for all laundry department staff and employees. You have been hired as a laundry attendant and will attend the seminar. In the spaces provided, record your responses to the topics that Julio has decided to address in the seminar.

1. Explain why the laundry room should not be used for linen storage.

2. Explain the purpose for the use of slatted shelves in the linen room.

3. Often, linen room shelves are marked with the storage date or with removable signs that designate which linens are to be distributed. Explain the purpose for this practice.

4. When not properly rotated, linens can be damaged. Explain what occurs to linens that have been stored for long periods of time.

   Describe a protective measure for stored linens.

5. A fellow employee requests that Julio review the organization of stored linens. Provide three examples of proper organization.

   1)

   2)

   3)

Activity 18-3 • True/False

Directions

Read the following statements regarding establishing par in the handling of linens. If the statement is true, circle the letter **T** to the left of the statement. If the statement is false, circle the letter **F**. In the space provided, rewrite each false statement to make it true.

T F 1. Par is the term used when referring to the normal amount of linens required to support the operations of an institution.

____

T F 2. The quantity of each linen item needed to supply the institution completely at one time is considered one-half par.

____

T F 3. A par number is established to ensure adequate linen supply and smooth operation within the institution.

____

T F 4. All the linens in one guestroom or one patient room at one time are considered one par for that room.

____

T F 5. An adequate linen supply would be one-half par in the guest or patient room, one-half par of clean linen for the next day, and one-half par in storage.

____

T F 6. No par is established for replacement of lost, damaged, or stolen items.

____

T F 7. An adequate par for a hospital may be three and one-half par per room.

____

T F 8. An additional par is added when institutions use a commercial service for linen supply to accommodate transport time.

____

T F 9. Par includes the amount of linen that must be inventoried per bed plus bath linens for one person.

____

T F 10. Minimum par consists of one par on the bed and in the bath, one in the floor linen room or on the housekeeping cart, one in the main linen room, one in the soiled linen cart en route to the laundry, and one in the laundry.

____

Activity 18-4 • Fill-in-the-Blank

Directions

Review the information regarding handling linen in health care and hospitality facilities by completing the following exercise. For each item below, write the word(s) in the blank provided that best completes the sentence.

1. Generally, the hospital housekeeping staff is not required to change bed linen – this is the responsibility of the ____________________ ____________________ and the ____________________ department.

2. In some cases, ward orderlies may help ____________________ and ____________________ the soiled linen for collection.

3. Clean linen carts are used only for clean linen and are never used to transport soiled linen. This procedure helps to avoid ____________________ ____________________.

4. Three types of linen packs prepared in some health care facilities are standard, ____________________, and ___ ________________.

5. The pack administered by the nursing station that may include a clean hospital gown is a(n) ____________________ pack.

6. The pack used to make the bed after cleaning the room and before admitting a new patient is a(n) ____________________ pack.

7. Isolation linen should not be placed in a laundry chute because the isolation linen could ____________________ the laundry chute thereby increasing the risk of ____________________.

8. The proper handling of isolation linen is to seal it in a ____________________-____________________ bag that is then placed inside an isolation linen bag.

9. When soiled linens are unloaded from carts of hampers in the laundry, those doing the sorting wear ____________________.

10. After touching soiled linens, employees handling soiled linens must ____________________ their hands.

11. Aged and worn linen are used mostly to supply ____________________ cloths.

12. In health care facilities, inventory of linens provides information for future ____________________ and ____________________.

13. In hospitality facilities, keeping the linen supply up to par and keeping an accurate linen inventory is the responsibility of the ____________________ ____________________ supervisor.

14. The linen pack is one way to keep a correct ____________________ of linen.

15. Hospitals use the linen pack method to ensure ____________________ of linens.

16. The linen control system in which each housekeeper receives one set of clean linens for each set of dirty linens returned is referred to as the ____________________ - ____________________ - ____________________ method.

17. Institutions that perform in-house laundry services set minimum par at ____________________ sets of bath linens and bed linens needed for each room.

18. To reduce the likelihood of linens being used as cleaning cloths, cleaning cloths are often ____________________ a different color from linens.

19. Satellite linen rooms should be stocked daily according to the ____________________ and kept ____________________ at all times.

20. The floor or receptacle on which soiled linen collects should be ____________________ and ____________________ frequently.

Activity 18-5 • Scenario

Directions

The life span of linens depends upon the care and treatment received when they are in use, in the laundry, or in storage. Improper handling of linens can seriously affect the budget of an institution. For this reason, the linen room is one of the most important areas in an institution. Complete the following exercise by reading the scenario. Respond to the items by writing your answers in the spaces provided.

You are the laundry department manager in an institution. On a daily basis, you walk through the laundry room in order to be available to answer employee questions and enforce company policies and procedures. Following are situations that you handle throughout the day.

1. It has come to your attention that the amount of damaged linen has increased and is affecting the departmental budget as purchasing new linen is required. In an informal staff meeting held before the day shift begins, you review the six guidelines that can help to avoid damage to linens. List the six guidelines.

   1)

   2)

   3)

   4)

   5)

   6)

2. You see a newly hired sewer and stop to ensure that he is comfortable with his responsibilities. Provide for the new employee the five areas of linen repair for which he might be responsible.

   1)

   2)

   3)

   4)

   5)

3. The new sewer points out the light table near his workstation. He tells you that he has not used this piece of equipment prior to this job. Explain the procedure for using the light table.

4. Mending is important for maintaining linens. Define the term mending.

5. A new employee is confused about the terms darning and patching.
   a. Define darning.

   b. Define patching.

6. Instruct the new employee in how to determine when to use the darning method and when patching should be used.

7. In the laundry room, you spot a pile of damp linens. You call this situation to the attention of the laundry department supervisor and remind her that damp linens left for long periods of time can become damaged.
   a. Explain the type of damage that might occur in this situation.

   b. Provide the supervisor with two actions that may be taken for damp linens that will not be washed immediately.

8. You and the supervisor agree that carelessness is the main cause of linen damage. List three other causes of linen damage.
   1)
   2)
   3)

Activity 18-5 • Scenario, cont'd.

9. The laundry department supervisor shows you a stack of damaged linen that she is considering discarding. You request that the supervisor recycle the items instead. Provide the supervisor with three recycling ideas.

   1)

   2)

   3)

10. You further instruct the employee in the use of a heat-seal machine for patching. Briefly describe the procedure for using a heat-seal machine.

Directions

Review equipment and supplies used in the proper care and handling of linen by completing the following exercise. You may use the space provided, a separate sheet of paper, or a word processing program to record your response.

You are the Cleaning Operations Manager for the County Hospital that is undergoing a refurbishing. It has been decided that the laundry department will receive new equipment and machinery. You are required to provide upper management with a listing of the types of equipment and machinery necessary for effective laundry operations. Along with the listing, briefly explain how the equipment/machinery is used.

INSTITUTIONAL MAINTENANCE MANAGEMENT
AND SERVICES
REFERENCE BOOK

BEST COPY AVAILABLE

FAMILY AND CONSUMER SCIENCES EDUCATION • TEXAS EDUCATION AGENCY • AUSTIN, TEXAS

Institutional Maintenance Management and Services

Reference Book

Developed and disseminated by:
The Curriculum Center for Family and Consumer Sciences
Texas Tech University
Box 41161
Lubbock, TX 79409-1161

In cooperation with:
Texas Education Agency
Division of Career and Technology Education
Family and Consumer Sciences Education
Austin, Texas

August, 2001

Acknowledgments

The *Institutional Maintenance Management and Services Reference Book* was prepared by the staff of The Curriculum Center for Family and Consumer Sciences. Development was jointly funded by the Texas Education Agency under Public Law 101-392, Carl D. Perkins, and by The Curriculum Center for Family and Consumer Sciences.

The following individuals made special contributions to the development of this publication.

The Staff of the Texas Education Agency Family and Consumer Sciences Education Unit:

Gay Nell McGinnis
Program Director

Cindy Gruner
Program Specialist

Sharon Pierce
Program Specialist

Diane Salazar
Program Specialist

The Staff of The Curriculum Center for Family and Consumer Sciences:

Marilyn Wragg
Director

Lynn Perrin
Associate Director

Debbie Mumme, PhD
Curriculum Project Coordinator

Sonja Koukel
Curriculum Specialist

Tracy Givens
Information Specialist/Editor

Becky Martinez
Editorial Assistant

****

Sonja Koukel served as staff writer and director of development for this publication.

****

Special acknowledgment is given to Lora Ann Neill,
who wrote the original *Institutional Maintenence* reference book.
The original document served as the base for
development of this publication.

Review Committee

Hilda Alonzo
Coordinator of Residence Halls Support Services
Texas Tech University
Lubbock, Texas

Jean Curtis
Family and Consumer Sciences Teacher
Arlington High School
Arlington, Texas

Felicitas Kennedy
Environmental Engineer
Environmental Health and Safety
Texas Tech University
Lubbock, Texas

Wileta Kretzschmar
Family and Consumer Sciences Teacher
Joshua High School
Joshua, Texas

June Lang
Hughes Services
Lubbock, Texas

Mary Mathieson
Family and Consumer Sciences Teacher, Retired
Abilene, Texas

Melinda Paxton
Merry Maids
Lubbock, Texas

Waynene Spradlin
Family and Consumer Sciences Teacher
Ysleta High School
El Paso, Texas

Rita Tucker
Family and Consumer Sciences Teacher
Paducah High School
Paducah, Texas

Nina Wright
Family and Consumer Sciences Teacher
Bryan High School-Blue
Bryan, Texas

Compliance Statement

TITLE VI, CIVIL RIGHTS ACT OF 1964; THE MODIFIED COURT ORDER, CIVIL ACTION 5281, FEDERAL DISTRICT COURT, EASTERN DISTRICT OF TEXAS, TYLER DIVISION

Reviews of local education agencies pertaining to compliance with Title VI Civil Rights Act of 1964 and with specific requirements of the Modified Court Order, Civil Action No. 5281, Federal District Court, Eastern District of Texas, Tyler Division are conducted periodically by staff representatives of the Texas Education Agency. These reviews cover at least the following policies and practices:

(1) acceptance policies on student transfers from other school districts;

(2) operation of school bus routes or runs on a nonsegregated basis;

(3) nondiscrimination in extracurricular activities and the use of school facilities;

(4) nondiscriminatory practices in the hiring, assigning, promoting, paying, demoting, reassigning, or dismissing of faculty and staff members who work with children;

(5) enrollment and assignment of students without discrimination on the basis of race, color, or national origin;

(6) nondiscriminatory practices relating to the use of a student's first language; and

(7) evidence of published procedures for hearing complaints and grievances.

In addition to conducting reviews, the Texas Education Agency staff representatives check complaints of discrimination made by a citizen or citizens residing in a school district where it is alleged discriminatory practices have occurred or are occurring.

Where a violation of Title VI of the Civil Rights Act is found, the findings are reported to the Office for Civil Rights, U.S. Department of Education.

If there is a direct violation of the Court Order in Civil Action No. 5281 that cannot be cleared through negotiation, the sanctions required by the Court Order are applied.

TITLE VII, CIVIL RIGHTS ACT OF 1964; EXECUTIVE ORDERS 11246 AND 22375; TITLE IX, 1973 EDUCATION AMENDMENTS; REHABILITATION ACT OF 1973 AS AMENDED; 1974 AMENDMENTS TO THE WAGE-HOUR LAW EXPANDING THE AGE DISCRIMINATION IN EMPLOYMENT ACT OF 1967; AND VIETNAM ERA VETERANS READJUSTMENT ASSISTANCE ACT OF 1972 AS AMENDED IN 1974

It is the policy of the Texas Education Agency to comply fully with the nondiscrimination provisions of all federal and state laws and regulations by assuring that no person shall be excluded from consideration for recruitment, selection, appointment, training, promotion, retention, or any other personnel action, or be denied any benefits or participation in any programs or activities which it operates on the grounds of race, religion, color, national origin, sex, handicap, age, or veteran status (except when age, sex, or handicap constitute a bona fide occupational qualification necessary to proper and efficient administration). The Texas Education Agency makes positive efforts to employ and advance in employment all protected groups.

Table of Contents

Chapter 1 – Introduction to Institutional Maintenance Management and Services 1
  Chapter Focus 1
  Chapter Vocabulary 2
  The Institutional Maintenance and Housekeeping Profession 3
  Education and Advancement 6
  Chapter Highlights 12

Chapter 2 – Opportunities for Institutional Maintenance Employment 13
  Chapter Focus 13
  Chapter Vocabulary 13
  Careers in Management 14
  Health Care 17
  Hospitality Services Industry 18
  Public and Private Sector Establishments 19
  Educational Institutions 20
  Contract Cleaning Services 21
  Chapter Highlights 24

Chapter 3 – Self-Employment Opportunities in Institutional Maintenance Services 25
  Chapter Focus 25
  Chapter Vocabulary 26
  Owning a Small Business 26
  Owning a Franchise 34
  Chapter Highlights 36

Chapter 4 – Achieving Job Success 37
  Chapter Focus 37
  Chapter Vocabulary 37
  Attitude 38
  Self-Control 39
  Initiative 40
  Personal Appearance 41
  Communication Skills 43
  Professionalism 44
  Dependability 45
  Accuracy 45
  Cooperation 46
  Honesty 46
  Chapter Highlights 48

Chapter 5 – Maintaining Client Relationships 49
  Chapter Focus 49
  Chapter Vocabulary 49
  Qualities That Contribute to Positive Client Relationships 50
  Industry-Specific Methods of Maintaining Client Relationships 55
  Handling Special Situations 57
  Managing Client Complaints 58
  Chapter Highlights 60

Chapter 6 – Communication Skills 61
  Chapter Focus 61
  Chapter Vocabulary 61
  Verbal Communication 62

Nonverbal Communication 65
Written Communication 67
Electronic Media 72
Levels of Communication 75
Conflict Resolution 77
Chapter Highlights 80

Chapter 7 – Organizations: Goals, Procedures, and Policies 81
Chapter Focus 81
Chapter Vocabulary 81
Organizational Goals 82
Organizational Procedures 83
Organizational Policies 84
Work Schedules 92
Employee Compensation 93
Company Benefits 95
The Value of Company Benefits 98
Chapter Highlights 99

Chapter 8 – Safety Policies 101
Chapter Focus 101
Chapter Vocabulary 101
Cost of Workplace Injuries 102
Safety Standard Regulations 103
OSHA Regulations 104
Ergonomics 109
Health Policies 111
Emergency Planning 115
Chapter Highlights 120

Chapter 9 – Safety and Sanitary Procedures 121
Chapter Focus 121
Chapter Vocabulary 121
Safe Use and Care of Cleaning Equipment 122
Safe Use and Storage of Cleaning Supplies 124
Safe Use of Hazardous Substances 125
Accident Prevention 129
First Aid 132
Sanitation 138
Chapter Highlights 141

Chapter 10 – Selecting Equipment and Supplies 143
Chapter Focus 143
Chapter Vocabulary 143
Selecting Equipment and Supplies 144
Housekeeping Equipment 145
Housekeeping Equipment - Nonchemical 145
Housekeeping Equipment - Chemical 154
Chapter Highlights 161

Chapter 11 – Hard-Surface and Soft-Surface Floor Care Procedures 163
Chapter Focus 163
Chapter Vocabulary 163
Hard-Surface Floor Care 164
Sweeping and Mopping Procedures 166

- Stripping, Sealing, and Buffing Procedures 170
- Soft-Surface Floors 172
- Stain Removal Procedures 175
- Vacuuming Procedures 175
- Shampooing Methods and Procedures 175
- Chapter Highlights 182

Chapter 12 – Above-Floor Care Procedures 183

- Chapter Focus 183
- Chapter Vocabulary 183
- Dusting 184
- Ceiling and Wall Care 185
- Furniture Care 190
- Glass Care 193
- Care of Furnishings 194
- Care of Metal Surfaces 199
- Care of Ceramic Fixtures and Drinking Fountains 201
- Chapter Highlights 203

Chapter 13 – Planning Maintenance Tasks: Methods, Procedures, and Sequences 205

- Chapter Focus 205
- Chapter Vocabulary 205
- The Management Process 206
- Maintenance Tasks: Methods, Procedures, and Sequences 208
- Public Areas 208
- Offices and Classrooms 217
- Hospitality Institutions 218
- Health Care Facilities 222
- Foodservice Facilities 227
- Exterior Maintenance 229
- Flag Display 231
- Chapter Highlights 233

Chapter 14 – Time Management and Work Simplification 235

- Chapter Focus 235
- Chapter Vocabulary 235
- Time Management 235
- Task Analysis 236
- Goals and Priorities 239
- Work Simplification 239
- Employee Fatigue 241
- Task Organization 243
- Chapter Highlights 246

Chapter 15 – Disinfection Techniques 247

- Chapter Focus 247
- Chapter Vocabulary 247
- Causes of Infection 248
- Infection Control 249
- Odors 252
- Pests 253
- Waste Disposal 256
- Chapter Highlights 259

Chapter 16 – Entering and Exiting Cleaning Areas 261
  - Chapter Focus 261
  - Chapter Vocabulary 261
  - Hospitality Institutions 262
  - Health Care Institutions 264
  - Public Areas 266
  - Reports and Records 266
  - Keys Policies 268
  - Chapter Highlights 270

Chapter 17 – Laundry Procedures and Equipment 271
  - Chapter Focus 271
  - Chapter Vocabulary 272
  - The Laundry Operation 272
  - Laundry Products 273
  - Prelaundry Procedures 278
  - Laundry Procedures 282
  - The Washing Process 285
  - Laundry Equipment 289
  - Chapter Highlights 297

Chapter 18 – Proper Care and Handling of Linens 299
  - Chapter Focus 299
  - Chapter Vocabulary 299
  - The Linen Room 300
  - Folding and Storing Linen 301
  - Handling Linen 304
  - Linen Repair 307
  - Chapter Highlights 311

References 313

Index 315

203

Chapter 1

Introduction to Institutional Maintenance Management and Services

Chapter Focus

The following Essential Knowledge and Skills are discussed in this chapter:

1A Identify routine maintenance practices of a specific business.

1B Explain the organizational structure of a specific business.

1D Determine societal, cultural, and demographic factors influencing institutional maintenance practices and procedures.

1E Describe institutional maintenance practices to accommodate employees or others with special needs.

2B Analyze leadership responsibilities.

2D Explain the role of management in compliance with local, state, and federal laws and policies.

7C Describe the impact of technology on equipment, supplies, and procedures utilized in the industry.

11A Determine preparation requirements for various levels of employment in a variety of institutional maintenance management and services careers.

11B Analyze the future employment outlook in the institutional maintenance management and services industry.

11F Determine continuing education opportunities that enhance career advancement and promote lifelong learning.

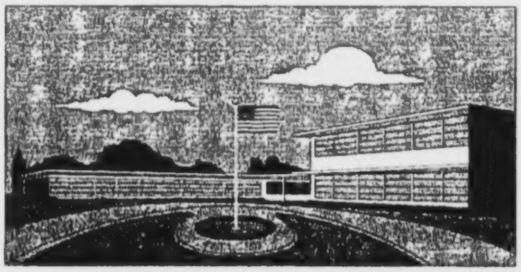
11H Analyze economic, cultural, and societal influences on the industry.

Chapter Vocabulary

Americans with Disabilities Act (ADA)
continuing education units (CEUs)
entry level
environmental services
ergonomics
executive housekeepers
grounds maintenance
housekeeping departments
HVAC
institutional maintenance
internship
job description
management
preventative maintenance
service-producing industry
supervisory level

Institutional maintenance is a specialized field that includes the housekeeping, custodial, and laundry services found in hospitals and health care facilities, day care centers, industrial plants, and private and public institutions. Falling under the umbrella of institutional maintenance is ***environmental services***. This often separate but related department works with supervisors at all levels to assure compliance with safety, health, and environmental standards as well as to promote sound work practices, such as good housekeeping. Primary functions include identifying and reducing health and safety hazards through compliance with federal, state, and local regulations. Areas covered under environmental services include the following:

- Chemical Inventory Management
- Environmental Health
- Fire Safety
- Hazardous Waste Disposal
- Indoor Air Quality Control
- Occupational Safety
- Pest Control
- Sanitation and Infection Control
- Waste Management



Many institutions have departments that specialize in providing clean, safe, and pleasant environments. These departments are known by many names including the following:

- Custodial Department
- Environmental Services
- Grounds Maintenance
- Housekeeping Department
- Janitorial Services
- Maintenance Department

In an attempt to upgrade the image of the institutional maintenance field, some housekeeping departments are changing their names to more accurately reflect the types of services they provide. ***Housekeeping departments*** are now known by such names as facilities management, institutional maintenance, and building maintenance.

In a hospitality facility such as a hotel or resort, the housekeeping department may be known as institutional maintenance or facilities management. Although not all departments are called by the same name, the terms housekeeping department, maintenance department, and environmental services department will be used interchangeably throughout this reference book to refer to the department that maintains a clean, safe, and attractive atmosphere in a facility or institution.

Terms used to describe institutional maintenance personnel are janitor, custodian, cleaner, and maid. The most common titles used in the institutional maintenance field are housekeeper and maintenance person. These last two terms will be used throughout this reference book to refer to an individual whose job it is to maintain a clean and pleasant atmosphere in a facility.

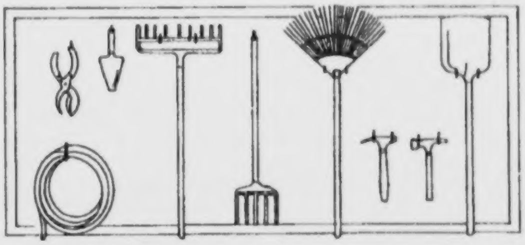
THE INSTITUTIONAL MAINTENANCE AND HOUSEKEEPING PROFESSION

The institutional maintenance and housekeeping staff play an important role in the success of an establishment. Such businesses as hotels, motels, hospitals, nursing homes, schools, churches, retail stores, manufacturing plants, and offices could not operate efficiently without the services of housekeepers and maintenance personnel.

For businesses, a housekeeping department can add to the revenue by providing a clean, attractive environment. Pleasing surroundings produce good public relations which can result in increased sales. In addition, a well-planned cleaning and maintenance program can help establishments save money by prolonging the lives of equipment, surfaces, and furnishings. A poor image is presented by unkempt, dirty surroundings while a positive image is presented by an organized, clean environment.

The appearance of an institution also affects the people who work there. Employees are happier and more productive in a clean, attractive, and pleasant-smelling environment than in a dirty, cluttered, and foul-smelling environment.

Even before entering an establishment, customers or clients form first and lasting impressions of that business. ***Grounds maintenance*** is an important division sometimes found within the housekeeping or maintenance department. Personnel working in this department are responsible for equipment maintenance, refuse removal, and seasonal maintenance tasks. Seasonal tasks may include duties such as snow removal in the winter, grass cutting in the summer, pruning trees and shrubs in the spring, and hard surface repair in the fall. A well-groomed and spotless exterior imparts a favorable impression on the business.



Both inside and outside, a clean environment can result in lower maintenance and upkeep costs for an institution. For example, walls that are kept clean will not require frequent repainting. Furniture that is cleaned daily will not require refinishing as often. Stains that are removed quickly will not cause serious damage to surfaces or fabrics. Carpets that are cleaned daily will last longer.

A regular care and cleaning program also serves as a preventive maintenance program. ***Preventive maintenance*** is caring for furnishings and equipment before problems occur.

Prompt attention to small repairs results in equipment that operates properly and efficiently and prolongs the lives of furnishings. In addition, preventive maintenance minimizes the high cost for replacing equipment and furnishings damaged as a result of neglect. It is evident, then, that a housekeeping and maintenance department does more than provide a clean, attractive environment.

Overview of the Industry

Institutional maintenance and housekeeping are a part of the ***service-producing industry***. Maintenance and housekeeping professionals work to meet the public demand for clean, sanitary buildings. Additionally, the focus of society and government on health requires that such institutions as manufacturing plants, offices, schools, and hospitals maintain certain standards in protecting the health of individuals. A career in the service-producing industry of institutional maintenance requires continuing study of new developments in equipment and technology, improved cleaning techniques, and laws concerning environmental programs that help to maintain a safe and healthy environment.

Employment

Industry Employment Outlook

According to the U.S. Department of Labor, the institutional maintenance field will continue to be one of the fastest-growing segments of the economy for the next decade. The 1995 *Occupational Outlook Quarterly* reported that demand for institutional maintenance personnel was expected to increase by more than 559,000 during the years 1994-2005. Further, according to the *Occupational Outlook Handbook 2000-01 Edition*, janitors and cleaners and institutional cleaning supervisors held nearly 3.3 million jobs in 1998. Projections for the American work force from 1998 to 2008 show that, in industry employment, service-producing industries will account for virtually all of the job growth. Service workers are expected to add 3.9 million jobs.

In the projected time span from 1998-2008, the Bureau of Labor Statistics reports that the greatest number of job openings will be in entry-level positions. An overall increase of 43.4 percent is projected, totaling 23,890 jobs. Entry-level jobs require little or no experience as on-the-job training is generally provided. And, although these positions are relatively low paying, they may offer opportunities for advancement into supervisory positions. A high school diploma improves the chances for advancement.

Institutional cleaning supervisors held about 87,000 jobs in 1998. Employment in supervisory positions was found in hotels, building maintenance services, hospitals, and nursing and personal care facilities. Other employers included educational institutions, residential care establishments, cruise ships, and amusement and recreation facilities. Although cleaning jobs can be found in all cities and towns, most are located in highly populated areas where there are many office buildings, schools, apartment houses, and hospitals.

Changes in the Industry

The image of institutional maintenance has changed from that of a task-oriented maid or janitor. Today's housekeeper must be familiar with laws governing waste collection and disposal, recycling, and the proper handling of hazardous wastes. In some facilities, maintenance personnel and the housekeeping staff are trained in the operation of automated systems, and most companies expect management and supervisors to have computer skills.

Waste collection, recycling, and disposal continue to impact the housekeeping department as general waste handling is managed by both local and federal regulations. Public demand has resulted in increased conservation and participation in recycling programs by most businesses today. Housekeepers often find themselves responsible for sorting and properly disposing of the following items:

- aluminum
- cardboard
- computer paper
- garbage
- glass
- newspapers/magazines
- plastic

In addition to general waste, the housekeeping department is sometimes designated the duty of hazardous waste disposal. This disposal is regulated by local and federal laws and involves such agencies as the Occupational Safety and Health Administration (OSHA) and the Environmental Protection Agency (EPA). Hospital housekeeping staff are trained in the proper sterilization, disinfecting procedures, and emergency spill procedures for surfaces. A knowledgeable and cautious cleaning staff can help prevent the transmission of diseases from environmental surfaces.

Technology in the Industry

Mechanization of housekeeping continues to impact cleaning methods. Employees are instructed in the proper use of the latest machines, some of which are:

- automatic scrubbers instead of mops;
- telescoping window-washing equipment;
- littervacs that have replaced blowers for removing debris both inside and outside of buildings; and
- pac vacs that are utilized for cleaning highly congested areas and ceiling fixtures.

Additionally, most institutions today are run on automated systems, so it is important that maintenance supervisors train their staff in monitoring ***HVAC*** (heat ventilation and air conditioning) units, chilled water systems, and security/fire systems.

Computers are another tool used by maintenance and housekeeping department managers and supervisors. Knowledge of computer systems, software systems, and the Internet are valuable skills in the workplace today. Managers may use software for scheduling, filing building service records, establishing service priority lists (i.e., emergency, rush, preventative), and automated accounting systems. The Internet provides managers with technical help, accessing information via databases, receiving the latest business updates through newsgroups, and contact with on-line vendors and suppliers.

◆ Essential Questions: ◆
The Institutional Maintenance and Housekeeping Profession

1. What role does the institutional maintenance department play in the upkeep of an establishment?
2. What benefits are derived from maintaining a clean, attractive environment?
3. In what types of facilities may individuals interested in institutional maintenance obtain employment?
4. What are some ways in which technology has impacted the institutional maintenance field?
5. What types of training have helped change the image of institutional maintenance?

BEST COPY AVAILABLE

EDUCATION AND ADVANCEMENT

Institutional Housekeeping and Maintenance

Housekeeping and maintenance entry-level jobs can lead to challenging opportunities as the need increases for well-trained managers to direct housekeeping programs. Many management opportunities exist for both men and women in the housekeeping field. Management positions involve establishing standards and procedures for the work of the housekeeping staff; developing and implementing budgets and purchasing plans; and hiring, directing, and evaluating employees.

Employees often progress to supervisory or management positions through on-the-job training, experience, and initiative. However, there are many college graduates employed in the field of institutional housekeeping and maintenance. This indicates that housekeeping is being recognized as a professional career. Many managers or directors of housekeeping departments, referred to as ***executive housekeepers*** in this book, will be expected to have additional training and a college degree in the area of hospitality, business management, industrial management, or environmental services.

Specialized training in the field of institutional housekeeping and maintenance is offered in universities throughout the United States. Courses offered include housekeeping procedures, hospitality organization and management, service marketing management, hospitality industry law and liability, financial analysis, and integrated management systems. Additional courses in the fields of science, computer systems, human relations, accounting, English, foreign language, psychology, and sociology provide students with skills necessary to become successful executive housekeepers.

Universities usually offer a four-year course of study that leads to a bachelor's degree. Junior and community colleges offer a two-year course of study that leads to an associate degree. A degree in institutional maintenance may be followed by a period of internship. An ***internship*** is a supervised work experience required by some universities. During an internship, the housekeeping department of an institution employs a student. The purpose of an internship is usually to provide an individual with practical work experience rather than a means to earn a living. Therefore, some internships do not pay a salary.

Additional sources of housekeeping and institutional maintenance education include short courses offered to the public by colleges or universities and accredited (approved) courses offered by professional organizations. These courses provide the housekeeper with up-to-date information regarding industry standards and advancements. In addition, housekeepers become more skilled in their profession and are able to attain administrative and management positions.

Environmental Services. The functions of environmental services include identifying and reducing health, safety, and environmental hazards through compliance with federal, state, and local regulations. The environmental services staff includes specialists in occupational safety, industrial hygiene, fire safety, environmental health, asbestos compliance management, and hazardous waste management. Due to the increasing demand for environmental specialists, many colleges and universities are adding degree programs. These programs may be offered under Environmental Services, Industrial Management, and Hospitality Housekeeping. Courses will include competencies such as the following:

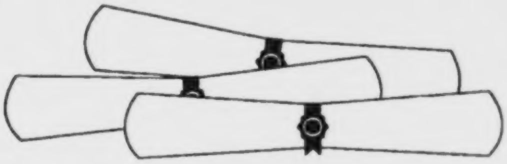
- Enforcing EPA regulations
- Industry compliance with OSHA
- Service operations management
- Administration of quality systems and technology
- ***Ergonomics*** (the study of how people and machines interact in their environments)
- Hazard communication programs

Certification Courses and Continued Education

The International Executive Housekeeper's Association, Inc. (I.E.H.A.) is a professional organization for Executive Housekeepers, Directors of Environmental Services, housekeeping and maintenance managers, and suppliers of custodial goods and services. Members and nonmembers may attain certification as a Registered Executive Housekeeper (the highest designation offered) or a Certified Executive Housekeeper by completing a degree program with required courses designated by I.E.H.A. Once received, these certifications require renewing approximately every two years. This is done by completing ***continuing education units (CEUs)*** of study and paying a renewal fee.

Today, a housekeeping manager must have outstanding organizational skills, technical proficiency, and a commitment to quality customer service. The Educational Institute of the American Hotel & Lodging Association (AH&LA) offers recognition for these skills through a Certified Hospitality Housekeeping Executive designation (CHHE). Certification programs are earned through a combination of experience and education and are available to members and nonmembers.

Certificate programs offered through the American Management Association (AMA) are comprehensive courses of study dedicated to management education. The programs offered help professionals master essential skills such as communications, team-building, financial planning, and strategic management.



The Environmental Compliance Certified Professional Environmental Auditor (CPEA) certification program is a unique program that originated from the Board of Environmental Auditors Certifications (BEAC). Candidates must have relevant experience and training in such areas as assessing compliance with environmental laws and regulations; environmental management and technical aspects of business activities including facility operations; and evaluation, implementation, and management of environmental compliance.

Certification programs and continuing education courses in the housekeeping and institutional maintenance field can be accessed in a variety of ways. Courses may be offered through computer-based distance learning, training videos and textbooks, or multimedia CD-ROM programs. Some organizations conduct training seminars and workshops where individuals can earn CEU's. Information regarding accredited courses may be obtained by contacting the state workforce commission and by searching the Internet.

Job Titles

A variety of jobs exist in the field of institutional maintenance and housekeeping. Therefore, individuals employed in this field are referred to by a variety of job titles. Job titles are usually classified as either managerial level, supervisory level, or entry level. ***Management*** is the executive level of an organization where decisions are made and policies are set. At the ***supervisory level***, policies are interpreted and procedures are outlined. At the ***entry level***, procedures are carried out. Examples of titles assigned to institutional maintenance and housekeeping jobs are included in Figure 1.1.

Job Titles

Management

Chief Engineer
Director of Environmental Services
Director of Housekeeping
Director of Public Spaces
Executive Housekeeper
Facility Manager
Housekeeping Manager
Laundry Manager
Manager of Cleaning Operations
Maintenance-Sanitation Manager
Maintenance Supervisor
Night Housekeeping Manager
Plant Manager
Rooms Division Manager
Rooms Executive Manager
Spa Director

Supervision

Assistant Executive Housekeeper
Assistant Housekeeping Manager
Assistant Rooms Executive
Cleaning Supervisor
Cleanup Operations Lead Person
Custodian Lead Worker
Floor Supervisor
Housekeeping Inspector
Housekeeping Lead Worker
Housekeeping Supervisor
Laundry Supervisor
Senior Housekeeper

Entry Level

Cleaner
Custodial Busser
Custodian
Environmental Services Aide
Front Desk Representative
Guest Room Attendant
House Attendant
Housekeeper
Housekeeping Aide
Janitor
Laundry Attendant
Laundry Helper
Laundry Sorter
Laundry Washer
Linen Keeper
Lobby Attendant
Maintenance Technician
Maintenance Craftsman
Pool Attendant
Porter
Sanitation Worker
Section Housekeeping Aide
Suitekeeper
Swimming Pool Operator
Turndown Attendant
Uniform Issue Attendant
Utility Cleaner
Unit Cleaner

Figure 1.1

The majority of jobs classified under environmental services require a college degree. However, there are entry-level positions that have no specifically required level of education. Some of the environmental services job titles are included in Figure 1.2.

ENVIRONMENTAL SERVICES		
Management	**Supervision**	**Entry-Level**
Environmental Company Branch Manager Environmental Engineer Environmental Risk Manager/Site Assessor Safety Specialist Solid Waste Management Professional Hazardous Waste Management Professional	Compliance Person Environmental Services Lead Aide Risk Assessment Person	Hospital Environmental Services Aide Waste Technician Waste Management Specialist Sanitary Landfill Operator Hazardous Waste Technician Safety Specialist

Figure 1.2

Job titles often differ among establishments. For example, one establishment may refer to an individual as a housekeeper while another establishment may refer to the same individual as a suitekeeper. Referring to the same job with different titles can create confusion. A person previously employed as a guest room attendant may assume that previous duties apply to his or her present job as a guestroom attendant. Confusion can be avoided if job descriptions are provided for each position within an establishment.

Job Descriptions

A ***job description*** is a written statement that explains the work to be performed in a specified occupational position. Job descriptions usually outline exactly what an employee will be required to do. Since all employment situations differ, job descriptions vary among establishments. Job descriptions usually include such information as job title, working hours, the name and title of the immediate supervisor, special qualifications needed, and the pay scale for the position. In addition, job descriptions usually specify whether or not employees are required to wear uniforms or use time clocks.

By law, employers are required to identify the physical and mental requirements of a job. The ***Americans with Disabilities Act (ADA)***, signed by President George Bush in 1990, was passed to protect people from being denied employment due to a physical or mental disability. Before being denied employment, establishments must show written evidence of the necessary requirements of the job.

Job descriptions are applied to positions within an establishment rather than to each individual employee. For example, all individuals with the job title of housekeeping aide are required to perform the same duties. The main function of job descriptions is to inform employees of their duties and responsibilities. However, job descriptions are also used for other purposes, such as recruiting employees, interviewing employees, training employees, and comparing and analyzing positions and salaries. Figure 1.3 provides an example of a job description in the field of institutional maintenance and housekeeping.

Job Description

EXECUTIVE HOUSEKEEPER

Basic Function

Assume complete direction, operational control, and supervision of the housekeeping and laundry departments and pool areas.

Scope

Operate the departments under his or her control in the most efficient manner possible through effective application and enforcement of company policies, the use of methods described in standard operating procedures, and the use of sound management principles. This manager is primarily responsible for the cleanliness of guestrooms and public areas assigned to the housekeeping department. It is expected that the executive housekeeper will accomplish assigned tasks through proper training, motivation, and supervision of all personnel assigned to the housekeeping and laundry departments.

Relationships to Personnel

1. Reports directly to the resident manager.
2. Has access to the general manager.
3. Coordinates functions of housekeeping, laundry, and recreation departments with all other departments.
4. Supervises and coordinates the activities of assigned assistants.

Work Emphasis

Time allocation for performance of position responsibilities:
50 percent administrative
30 percent operations, inspections, and training

Specific Responsibilities

1. Coordinate with the personnel department regarding prescreening of employees, indicating staffing needs and qualifications desired of personnel necessary to staff the housekeeping and laundry departments. Coordinate with resident manager on hiring of immediate subordinates.
2. Develop plans, actions, and standard operating procedures for the operation and administration of assigned departments. Establish and maintain housekeeping and laundry scheduling procedures, taking into consideration percent occupancy, time and use of facilities, and related public specialty areas and events.
3. Organize the housekeeping departments using the housekeeping team concept, with each housekeeper cleaning room sections.
4. Develop an inspection program for all public areas and guestrooms to ensure that proper maintenance and standards are achieved and sustained.
5. Coordinate the operation of the housekeeping and laundry departments in the hotel to guarantee minimum disruption in the overall operation of the hotel.
6. With assistance from the resident manager, develop budgets for housekeeping, laundry, and recreation departments to ensure that each operates within established costs while providing maximum service.
7. Establish a training program within assigned departments that will enable positions of increased responsibility to be filled from within the department.

Figure 1.3 *(continued on page 11)*

8. Be constantly alert for newer methods, techniques, equipment, and materials that will improve the overall operation of the departments and will provide a more efficient operation at reduced costs.
9. Stimulate within all employees a friendly and cheerful attitude, giving proper emphasis to courtesy in contacts with guests and other employees.
10. Administer time card control over all assigned hourly employees.
11. Maintain strict inventory and purchase control over all controllable items.
12. Develop job descriptions for all members of assigned staff.
13. Serve as expeditor on special projects assigned by the resident manager or the general manager.
14. Communicate freely and effectively with assigned personnel, continuously passing on to assistants and subordinates any information necessary to make them feel included in the overall operation of the hotel. Reassure, if necessary, the objectives toward which hotel employees are striving.
15. Conduct employee performance appraisals on time, showing objectivity and sincerity. Employees should be personally counseled toward improvement.
16. Coordinate with the resident manager concerning the termination of any employee.
17. Maintain control of linen rooms, storerooms, new linen, and cleaning supplies, ensuring adequate security and supply.
18. Be responsible for the proper scheduling of the department, keeping in mind the forecast of daily occupancy.
19. Develop a personal plan to carry out responsibilities.

Source: *Professional Management of Housekeeping Operations (3rd ed.)*, R. J. Martin, Copyright © 1998 by John Wiley & Sons, Inc. Reprinted by permission of John Wiley & Sons, Inc.

Figure 1.3 - Cont'd.

◆ Essential Questions: ◆ Education and Advancement

1. What types of educational background are required for managers and supervisors in institutional maintenance?
2. What types of education are available for individuals in the field of environmental services?
3. How does an individual become certified?
4. Why do job titles and job descriptions vary among establishments?
5. What are some ways job descriptions are used by managers?

BEST COPY AVAILABLE

Chapter Highlights

- Institutional maintenance is a specialized field that includes housekeeping, custodial, and laundry services in health care facilities, day care centers, and commercial, private, and public institutions.
- Environmental services functions to identify and reduce health and safety hazards through compliance with federal, state, and local regulations.
- In an attempt to upgrade the image of the institutional maintenance field, some housekeeping departments are now known by such names as facilities management, institutional maintenance, and building maintenance in order to more accurately reflect the types of services provided.
- The duties of an institutional maintenance department are important since a clean, attractive environment results in good public relations, increased sales, prolonged lives of surfaces, happier and more productive employees, and lower maintenance and upkeep costs.
- The focus of society and government on health issues requires individuals in institutional maintenance to continue study of new developments in equipment and technology, improved cleaning techniques, and laws concerning environmental programs that help to maintain a safe and healthy environment.
- According to the U.S. Department of Labor, the institutional maintenance field will be one of the fastest-growing segments of the economy for the next decade.
- In the projected time span from 1998-2008, the greatest number of job openings in institutional maintenance will be in entry-level positions. Although these positions require little or no experience, a high school diploma improves the chances for advancement into supervisory positions.
- Institutional maintenance is being recognized as a professional career. Individuals must obtain formal education, such as the following, in order to obtain positions as executive housekeepers: specialized training at colleges and universities resulting in a bachelor's degree or an associate degree, internships, short courses offered by colleges and universities, and accredited courses offered by professional organizations.
- The image of institutional maintenance has changed from that of a task-oriented maid or janitor. Today's workers must be familiar with laws governing waste collection and disposal, recycling, and the proper handling of hazardous wastes. Additionally, hospital housekeeping staff are trained in the proper sterilization and disinfecting procedures to help prevent the transmission of diseases from environmental surfaces.
- Technology continues to impact the institutional maintenance industry. For example, machines have simplified work procedures, maintenance supervisors are required to train their staff in monitoring automated systems, and managers are expected to have knowledge of computer and software systems.

Chapter 2

Opportunities for Institutional Maintenance Employment

Chapter Focus

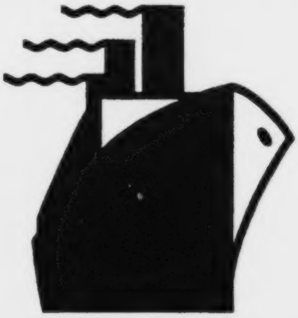
The following Essential Knowledge and Skills are discussed in this chapter:

1A Identify routine maintenance practices of a specific business.
1D Determine societal, cultural, and demographic factors influencing institutional maintenance practices and procedures.
2A Evaluate management styles.
11A Determine preparation requirements for various levels of employment in a variety of institutional maintenance management and services careers.
11B Analyze the future employment outlook in the institutional maintenance management and services industry.
11D Determine how interests, abilities, personal priorities, and family responsibilities affect career choice.
11E Compare rewards and demands for various levels of employment in a variety of careers.
11H Analyze economic, cultural, and societal influences on the industry.
13B Exhibit management practices facilitating individuals assuming multiple roles.

Chapter Vocabulary

cleaning teams
contract cleaning services
disinfection
educational institutions
hazardous materials
health care institutions
hospitality services industry
Occupational Safety and Health Administration (OSHA)
public and private sector establishments
sanitation
sterilization

Careers in the field of institutional maintenance are appropriate for individuals who have an interest in performing services that provide for the comfort and convenience of other people. Although the majority of housekeepers are employed in hospitals, motels, and hotels, other sources of employment include schools, university dormitories, college sorority and fraternity houses, country clubs, cruise ships, and churches. Housekeepers may also obtain employment in wholesale and retail stores, shopping malls, manufacturing firms, transportation depots, and entertainment facilities.



Although housekeeping procedures are similar, each area in the field of institutional maintenance has different policies and procedures. Therefore, housekeeping duties vary among facilities. Table 2.1 illustrates the aim of the housekeeping department for different types of establishments.

Employment opportunities are available in areas that are related to institutional maintenance. For example, many businesses serve the institutional maintenance field through sales of cleaning supplies and equipment. These businesses employ trained individuals who are qualified to teach others how to safely use equipment and supplies. Also, employment opportunities are available in cleaning supply and equipment manufacturing plants. These companies provide individuals with opportunities to research, develop, produce, distribute, and sell new cleaning supplies and equipment that are used in the institutional maintenance industry.

CAREERS IN MANAGEMENT

Institutional cleaning supervisors held about 87,000 jobs in 1998. Employment in supervisory positions was found in hotels, building maintenance services, hospitals, and nursing and personal care facilities. Other employers included educational institutions, residential care establishments, cruise ships, and amusement and recreation facilities.

Type of Establishment	Aim of Housekeeping Department
Hotels Bed and Breakfast Inns Motels	To provide quick and efficient cleaning of guest rooms and public areas with little inconvenience to the guests.
Hospitals Nursing homes Convalescent homes Hospices	To operate a thorough, unobtrusive, regular cleaning program including sanitation, disinfection, and sterilization to reduce the spread of illness.
Hostels Correctional institutions Women's shelters	To provide a regular cleaning service that fits within a given budget and is sufficient to maintain acceptable standards of cleanliness.

Table 2.1

Management involves directing and controlling the work of others. This indicates that institutional maintenance managers must have knowledge in many areas of institutional maintenance and housekeeping and must be able to effectively use various management styles in supervising employees.

Being a manager or supervisor in institutional maintenance can be an interesting, rewarding, and varied job. Managers are involved with many tasks such as the following:

- Equipment and chemical supplies purchasing
- Scheduling work tasks
- Hiring and training employees
- Bookkeeping and payroll
- Customer satisfaction

According to the U.S. Department of Labor, the institutional maintenance field will continue to be one of the fastest-growing segments of the economy for the next decade. Because the greatest number of job openings will be in entry-level positions, the need for managers and supervisors will likely increase. Institutional maintenance employees can reach the managerial level through several ways:

- Work up within an organization.
- Enter a management training program.
- Take college or trade school courses in hospitality or environmental services.

Being a Manager

Personal Characteristics. Institutional maintenance can be a demanding job. For instance, the employee turnover rate is estimated at 200 to 300 percent per year. This means that twice, even three times per year, a business may have all new people working for the company each and every year. Here, the manager's role is to hire and keep good employees in order to keep labor costs down. This is just one way in which an institutional manager plays a critical role in the success of a company.

Many individuals possess personality traits that make them excellent candidates for careers in management. Although it is desirable naturally to possess such management personality characteristics, many of the traits can and must be developed. Some of the traits a successful institutional maintenance manager exhibits include the following:

- Works well with other people, including those from other cultures and socioeconomic levels
- Exhibits responsibility, trustworthiness, and dependable behavior
- Works well without supervision
- Reads, writes, and speaks well
- Exhibits an appreciation for cleanliness and sanitation
- Exhibits high standards of neatness
- Exhibits enthusiasm and creativity on the job
- Sets goals and develops ways to achieve those goals
- Organizes work, makes decisions, and accepts errors as learning experiences
- Exhibits a loyalty toward the company and a willingness to observe company policies
- Willingly devotes long working hours to management responsibilities

Styles of Management. Managers motivate and develop employees using four basic styles of supervision. Differences in personalities of the manager and the employee require an institutional maintenance manager to become familiar with all four styles. Depending on the situation, the management style used can have both negative and positive effects on quality and production. Managers face employee personalities that require the use of each one of these styles periodically. Table 2.2 describes the characteristics of each management style.

Styles of Management

Style	Characteristics	Employee Responses
Bureaucratic Style	Also known as the directive manager; manager relies on rules, goes by the book like a military officer or a police officer enforcing rules; direction is in accordance to strict regulations, procedures, and policies.	Employees are less motivated and supervisor is perceived as a "watchdog;" workers will only do what is required while the manager is watching.
Democratic Style	Manager shares the decision making with employees to form a team approach to the duties; Democratic style is also called collaborative style; the manager is sometimes thought of as a coach; foodservice managers often use this style of supervision because it promotes team spirit and mutual respect.	Employees respond positively because they appreciate the freedom and trust to make decisions; team spirit and cooperation make the workplace a pleasant place to contribute; also employees who are managed by this style tend to value the contributions of others as well as their own.
Autocratic Style	Manager keeps the decision-making power to self; employees are dependent on manager for instructions, and will act only under direct supervision; this style is best used in situations where short-term, high quantity production is necessary.	Employees will respond positively for a short-term project, but tend to become resentful if this style is used on a daily basis; when employees tire of this management style, they will withhold normal contributions to the job.
Spectator Style	Also known as non-directive, free-rein style of management; supervisors let employees do their job and act only as a consultant available in crisis situations; managers are usually not in direct contact with employees but stay in touch through meetings, reports, and records of output; employees are perceived as professionals and experts by the manager and by themselves.	The response is very positive to this style of leadership; employees are independent and productive for long periods of time; this style promotes pride and morale as long as the boss does not become too unavailable to give the employees feedback about their work.

Table 2.2

◆ **Essential Questions: Careers in Management** ◆

1. What are some businesses where an individual might find employment opportunities in institutional maintenance?
2. What personal characteristics are desirable for a successful institutional maintenance manager?
3. How can individuals reach the managerial level in the field of institutional maintenance?
4. Which styles of supervision encourage employees to take responsibility for the accomplishment of workplace goals?

HEALTH CARE

Types of ***health care institutions*** include hospitals, nursing homes, rehabilitation facilities, medical and dental laboratories, and blood banks. All health care institutions have similar needs to control infection and maintain a pleasant environment. Therefore, housekeeping departments in health care institutions provide essential support services that contribute to the quality of health care provided.

Today, individuals compare health care institutions and choose those that meet their needs. Individuals evaluate health care institutions on the basis of what they see. A facility that is not clean often creates an unfavorable impression. When individuals see carpets or floor coverings that are stained, walls that are smudged or dirty, and windowsills that are covered with dust, they may begin to look elsewhere for health care. Housekeeping is becoming a high-priority item in the budgets of health care institutions as health care administrators realize that a well-kept, clean, and pleasant facility attracts clients, increases profits, and reduces employee turnover.

Environmental services is the title most often used for the hospital or health care housekeeping department. Its staff is trained in reducing the spread of microorganisms that can cause illnesses through viruses and bacteria. Employees are required to know how germs are spread, the effective methods used to prevent the spread of infection, and the types of chemicals available for use.

The methods used to prevent the spread of infection are sanitation, disinfection, and sterilization. ***Sanitation*** is the cleaning of surfaces and equipment to reduce the number of germs that can cause illnesses, while ***disinfection*** is the use of chemicals that kill specific types of germs. The ***sterilization*** process destroys all forms of microorganisms.

Due to national concerns about possible contracting of diseases while working in environmental services, written directives and guidelines for sanitizing, disinfecting, and sterilizing patient-care equipment are available through government agencies. These government agencies include the Center for Disease Control (CDC) and Occupational Safety and Health Administration (OSHA). Through planning, implementing, and maintaining a high-quality cleaning system, a safe environment is provided for health care patients, staff, and visitors.

NOTICE
GOVERNMENT ISSUES

BEST COPY AVAILABLE

◆ **Essential Questions: Health Care** ◆

1. How do housekeeping departments in health care institutions contribute to the quality of health care provided?
2. What are some ways environmental services employees prevent the spread of infection?

HOSPITALITY SERVICES INDUSTRY

The ***hospitality services industry*** encompasses lodging and food and beverage operations. Opportunities for employment in the hospitality services industry include such facilities as hotels, motels, resorts, bed and breakfast inns, spas, time-share condominiums and apartments, retirement villages, cruise ships, airlines, trains, restaurants, cocktail lounges, health clubs, and convention centers.

The success of businesses in the hospitality services industry depends on profit. Guests do not return and profit is lost when facilities are dirty or unattractive. Housekeeping and maintenance departments provide important services to hospitality facilities. They are responsible for maintaining a clean, safe, and attractive facility that will attract customers and earn profits.

Duties assigned to housekeeping personnel in the hospitality services industry are varied. Housekeeping responsibilities include washing windows, walls, and mirrors; dusting furniture; vacuuming rugs; and mopping floors. Listed below are areas that may be included in the daily cleaning schedules for housekeeping and maintenance personnel:

- Guest rooms - including hallways, vending areas, elevators, and stairwells
- Public areas - lobbies, front desk, main entrance, restrooms, game and exercise rooms, and computer rooms
- Offices, ballrooms, conference rooms, and meeting rooms
- Employee areas - locker rooms, cafeterias, and restrooms

Generally, the size of the hospitality facility determines the housekeeping responsibilities. While smaller properties may require the housekeeping department to clean the kitchen area, restaurants, bars, and meeting rooms, a large facility may designate those areas to the food and beverage or maintenance divisions. Additionally, maintenance departments may be responsible for the cleaning and servicing of the following:

- Recreation areas including swimming pools, Jacuzzi pools, spas, and tennis courts
- Public areas, such as parking lots, parking garages, sidewalks, and landscaping
- Maintenance shop

Projected Growth in the Hospitality Services Industry

For the hospitality services industry, future economic trends point to growth in the travel industry spurred by the aging baby-boom generation, who will have both the finances and the time to travel. The single population, which accounted for 9 percent of leisure travel in 1998, is expected to increase by 26 percent in the next

decade. Minority groups (i.e., African American, Hispanic American, and Asian American) are expected to increase their travel 10 percent by the year 2020. This growth is predicted to be both in leisure travel and educational travel with the largest overall increase in the cruise industry. In 2000, the Cruise Lines International Association (CLIA) reported passenger growth of nearly 16 percent, with cruise lines having hosted approximately 6.9 million guests. The continued increase in demand resulted in new ships to produce an 11 percent increase in berths (places for guests to sit and sleep) for the industry.

Expansion in the travel industry means more new room openings (i.e., hotels, motels, resorts), which translates to increased employment opportunities for housekeeping and maintenance personnel. Personal service, a large component of the hospitality services industry, is not easily replaced by technology as in other industries. Therefore, the dedicated housekeeping employee continues to be much in demand, and individuals who choose to enter this field should enjoy career and personal growth opportunities now and in the foreseeable future.

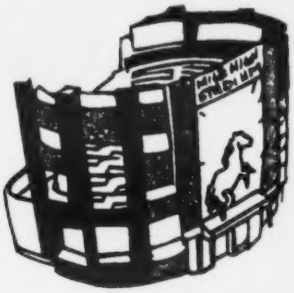
◆ *Essential Questions:* ◆ *Hospitality Services Industry*

1. How do institutional maintenance departments affect profits of an establishment?
2. What factors have contributed to the growth in the travel industry? How does this growth affect the institutional maintenance industry?

PUBLIC AND PRIVATE SECTOR ESTABLISHMENTS

Housekeepers and maintenance personnel are employed by many ***public and private sector establishments***, such as banks, office buildings, manufacturing plants, supermarkets, retail stores, churches, museums, libraries, art galleries, sports facilities, recreational facilities, civic centers, theaters, and convention centers. Many of these establishments rely on profit. Since individuals often choose not to patronize establishments that are not clean and attractive, a pleasing environment is important to the success of an establishment.

Public and private sector establishments require housekeeping and maintenance personnel to perform a variety of cleaning procedures. However, most facilities require some similar tasks, such as floor care, restroom maintenance, and dusting. Employees may also be required to clean windows, light fixtures, walls, ceilings, doors, and woodwork. In small establishments, the housekeeper may be responsible for making minor repairs and performing routine preventive maintenance tasks.



Some public and private sector establishments train and staff their own housekeeping departments, while others contract out the work to privately owned cleaning services. Companies that choose an outside business to provide housekeeping and maintenance services often find it necessary to have one of their own employees supervise the cleaning service. Supervisors should have knowledge of the work involved and exhibit good interpersonal skills.

In some establishments, a small housekeeping staff may provide limited services during business or production hours with the majority of cleaning tasks completed after the establishment is closed. This method of cleaning allows normal business routines to occur without the interference of housekeeping personnel. For example, a bank might employ a small housekeeping staff to maintain restrooms, spot clean lobbies, and empty trash during business hours. The same bank might employ a contract cleaning service to thoroughly clean the building after business hours. Thorough cleaning may include stripping, waxing, and buffing floors; dusting offices; disinfecting restrooms; and shampooing carpets.

Some public and private sector establishments, such as manufacturing plants, operate twenty-four hours per day. Interruptions in the manufacturing process can result in fewer items being produced and a loss of profit. Housekeeping and maintenance tasks for these facilities must be planned carefully in order to minimize interruptions. Housekeeping personnel are usually trained to work efficiently and safely around employees and equipment.

In addition to performing general cleaning and preventive maintenance, businesses may contract a privately owned company to regulate waste collection, recycling, and disposal. These specialized contract services ensure customers that wastes will be managed safely, in compliance with laws and regulations, and in a manner protective of the public's health and natural resources.

◆ Essential Questions: ◆ Public and Private Sector Establishments

1. How do housekeeping duties differ in health care institutions, hospitality services facilities, and public and private sector establishments?
2. What are some advantages for businesses to contract out services for waste collection, recycling, and disposal?

EDUCATIONAL INSTITUTIONS

Housekeepers and maintenance personnel are employed by a variety of educational institutions to maintain a safe and healthy environment for students, faculty, and staff. ***Educational institutions*** include public and private elementary schools and secondary schools, colleges, universities, and technical schools.

Housekeeping personnel in educational institutions are often responsible for the following:

- Cleaning public areas, offices, classrooms, laboratories, auditoriums, gymnasiums, restrooms, and locker rooms
- Maintaining the grounds
- Making minor repairs on furnishings and equipment
- Checking and maintaining heating and cooling equipment, hot water heaters, and other equipment necessary for operation of the institution
- Cleaning snow and ice from walkways
- Cleaning up after accidents
- Laundering athletic uniforms, towels, and other linens

A small educational institution may employ only one or two housekeepers for each building, while a larger institution may employ a larger staff for each building. Most public schools are only in session for nine months of the year, but housekeeping duties are performed year round. Usually, during the summer when students and teachers are on vacation, housekeepers thoroughly clean the institution by scrubbing walls, stripping and waxing floors, shampooing carpet, washing windows, and washing and polishing furniture.

Colleges and universities employ housekeepers in a variety of settings. Dormitories, classroom buildings, administration and office buildings, foodservice facilities, power plants, environmental services, recreational facilities, and warehouses all require the services of a housekeeping and maintenance department. Staffing of these areas may be done through a central housekeeping director, or each area may hire housekeeping and maintenance personnel.

College
Cafeteria

Most colleges and universities are in session throughout the year. Therefore, housekeepers must plan their work around students, faculty, and staff. Cleaning of classrooms and office buildings is often done at night when fewer students, faculty, and staff are present. In comparison, dormitories are often cleaned during the day when students are in class. Thorough cleaning is often done during semester breaks and holidays.

Environmental Services

The environmental services housed on most college and university campuses work in conjunction with students, faculty, and staff to provide and maintain a safe and healthful environment in which to work, study, and learn. Environmental services division personnel are responsible for planning, implementing, and administering the health and safety program of the educational institution. These programs may include surveillance of campus food facilities, swimming pools, laboratory animal facilities, day care facilities, and coordination of pest control operations. As is true with most housekeeping and maintenance staff, environmental services employees work throughout the year.

◆ **Essential Questions: Educational Institutions** ◆

1. What are some duties performed by housekeeping personnel in educational institutions?
2. What are some of the responsibilities of the environmental services housed on college and university campuses?

CONTRACT CLEANING SERVICES

Opportunities for institutional maintenance employment are available through ***contract cleaning services***. These cleaning services are privately owned companies that provide services to such establishments as businesses, schools, hospitals, hotels, apartments, construction sites, and private homes.

Many establishments hire contract cleaning services because it is more cost efficient than hiring, training, and supervising an in-house staff. For instance, many hotels, health care facilities, clubs, and institutional establishments contract linen and laundry services with an off-premises commercial laundry. This is done because the laundry industry is highly mechanized, consumes large amounts of energy, and may place additional repair and maintenance responsibilities on the housekeeping and maintenance department.

In addition to linen and laundry services, contract-cleaning services offer housekeeping services and environmental services. Large companies with many employees may offer all these services. Smaller businesses generally offer more limited and specialized services.

Housekeeping Services

Some contract cleaning services specialize in providing cleaning services to either residential or commercial establishments. Others provide services to both. Residential cleaning may include the following services:

- Vacuum carpet and hard surface floors, stairs, and upholstered furniture.
- Dust furniture, wall hangings, windowsills and ledges.
- Clean windows and patio doors.
- Clean bathrooms - clean and disinfect toilets, tubs, showers, counters, and floors.
- Clean kitchens - clean and disinfect sinks and counters, clean outside of appliances and cabinet doors, load dishwasher, wash and wax floors, and remove trash.
- Make beds and change linens.

Commercial establishments may use maintenance contract cleaning services that offer both cleaning and building maintenance services. Business offices, factories, malls, schools, and government and public buildings may contract cleaning services to perform both inside and outside cleaning and maintenance tasks. In addition to housekeeping duties, these contract cleaning services may offer some or all of the following:

- Light fixture cleaning and relamping
- Metal cleaning and refinishing
- Winter snow maintenance
- Painting
- Complete office furniture moving and setup
- Industrial steam cleaning
- Ceiling diffuser and return air cleaning

Contract cleaning services provide a variety of housekeeping and maintenance services - most tailored to fit the needs of the customer. Some companies offer many services, while others specialize in one area, such as carpets, windows, or floors. Additionally, there are contract cleaning services that specialize in cleanup after disasters such as fires, floods, or vandalism.

It is common for contract cleaning services to use ***cleaning teams***. A team of workers is able to perform more work in less time than one individual working alone. However, smaller companies with a limited staff can contract more business and serve more customers by sending one employee to each site.

Employment with a contract cleaning service is usually flexible and may allow an individual to choose his or her desired work schedule. For example, housekeepers employed by contract cleaning services may choose to work full-time or part-time. In addition, housekeepers may choose the time of day they prefer to work since some contract cleaning services work mainly in the evening while others work during the day.

Promotion to supervisory positions is possible and is usually contingent upon length of service with the company. In addition, some contract cleaning services may require some formal training.

Environmental/Waste Management Services

In the past twenty years, protection of the environment has become a major issue in the United States. Public demands have resulted in the forming of government agencies whose responsibilities include overseeing programs for recycling materials and managing hazardous waste disposal. Common ***hazardous materials*** include paint, batteries, medicine, household cleaners, and fluorescent bulbs.

Businesses are required by law to recycle and follow strict guidelines in handling hazardous waste to prevent further contamination of the planet and to ensure the health and well-being of the public. Failure to adhere to these laws may result in businesses facing large fines and public disclosure.

FRIENDLY TO THE
ENVIRONMENT
TM

Health care facilities face the same concerns regarding recycling and hazardous waste disposal as do plants, factories, and businesses. However, these facilities are concerned also with controlling the spread of infection. The ***Occupational Safety and Health Administration (OSHA)*** issues directives to guide health care facility housekeepers and maintenance workers in the safe handling of soiled laundry, bagging contaminated articles (i.e., needles, syringes), and cleaning blood spills.

Many businesses and health care establishments hire environmental contract services for waste management because it is more cost efficient than hiring, training, and supervising an in-house housekeeping and maintenance staff. Environmental contract services offer risk-free management of waste products by accepting any liabilities that may result from spills or accidents.

Through the year 2005, employment in the waste management and environmental services field is expected to be strong. This growth is due to the increasing number of hazardous waste sites, the need to reduce and recycle solid waste, and the growing number of federal, state, and local regulations.

Currently, there is no minimum educational requirement to work as a waste management technician, so entry-level positions are available. Most training is on-the-job, learned through assisting waste management professionals. Individuals interested in management positions will need post-secondary training in math, science, and computer technology.

◆ Essential Questions: ◆ Contract Cleaning Services

1. What are some reasons businesses employ contract cleaning services?
2. What are some advantages of working for a contract cleaning service?
3. What are examples of environmental concerns that are addressed by institutional maintenance departments?
4. What types of training are required for employment in the waste management and environmental services field?

Chapter Highlights

- Opportunities for institutional maintenance employment exist in health care institutions, hospitality services industries, public and private sector establishments, educational institutions, and contract cleaning services.
- Employment opportunities are available in institutional maintenance related businesses, such as cleaning supply and equipment manufacturing plants.
- Institutional maintenance managers are involved with many tasks. Examples include equipment and chemical supplies purchasing, scheduling work tasks, bookkeeping and payroll, and customer satisfaction.
- Managers motivate and develop employees using four basic styles of supervision. These styles are bureaucratic, democratic, autocratic, and spectator. Differences in personalities of the manager and the employee require an institutional maintenance manager to become familiar with all four styles.
- Housekeeping is becoming a high-priority item in the budgets of health care institutions as health care administrators realize that a well-kept, clean, and pleasant facility attracts clients, increases profits, and reduces employee turnover.
- Environmental services employees in hospitals and health care institutions are trained in reducing the spread of microorganisms that can cause illnesses through viruses and bacteria.
- Written directives and guidelines for sanitizing, disinfecting, and sterilizing patient-care equipment are available through the Center for Disease Control and Occupational Safety and Health Administration.
- Growth in the travel industry is predicted to increase employment opportunities for housekeeping and maintenance personnel.
- Some public and private sector establishments may contract a privately owned company to regulate waste collection, recycling, and disposal. Many establishments contract these services because it is more cost efficient than hiring, training, and supervising an in-house staff.
- The environmental services division housed on most college and university campuses is responsible for planning, implementing, and administering the health and safety program of the educational institution.
- Contract cleaning services provide a variety of housekeeping and maintenance services - most tailored to fit the needs of the client.
- In addition to recycling and hazardous waste disposal, health care facilities are concerned also with controlling the spread of infection.
- Through the year 2005, employment in the waste management and environmental services field is expected to be strong due to the increasing number of hazardous waste sites, the need to reduce and recycle solid waste, and the growing governmental regulations.

Chapter 3

Self-Employment Opportunities in Institutional Maintenance Services

Chapter Focus

The following Essential Knowledge and Skills are discussed in this chapter:

1A Identify routine maintenance practices of a specific business.

1C Adhere to company policies and procedures.

1D Determine societal, cultural, and demographic factors influencing institutional maintenance practices and procedures.

2B Analyze leadership responsibilities.

3D Differentiate marketing and public relations plans effective for various types of operations.

7A Develop guidelines for selecting equipment, supplies, and procedures for assigned tasks.

7C Describe the impact of technology on equipment, supplies, and procedures utilized in the industry.

11B Analyze the future employment outlook in the institutional maintenance management and services industry.

11C Describe entrepreneurial opportunities in institutional maintenance management and services.

11D Determine how interests, abilities, personal priorities, and family responsibilities affect career choice.

11E Compare rewards and demands for various levels of employment in a variety of careers.

11G Predict the impact of technological advancements on the institutional maintenance management and services industry.

11H Analyze economic, cultural, and societal influences on the industry.

13B Exhibit management practices facilitating individuals assuming multiple roles.

Chapter Vocabulary

- bid
- bond
- down time
- electronic commerce
- entrepreneur
- franchise
- franchisee
- franchisor
- liability insurance
- package price
- promotion
- property insurance
- royalty
- U. S. Small Business Administration (SBA)
- vehicle insurance
- Worker's Compensation Insurance

OWNING A SMALL BUSINESS

Although there are numerous employment opportunities in established areas of institutional maintenance, entrepreneurial housekeeping opportunities also exist. An ***entrepreneur*** is an individual who assumes the risk of organizing and operating a business for the purpose of making a profit. Entrepreneurs start housekeeping or cleaning services to serve both commercial and residential markets. Owning a cleaning service provides an individual with opportunities to gain personal rewards such as the following:

- Being independent
- Earning a potentially high income
- Gaining personal growth
- Making decisions
- Being creative
- Choosing work hours

Cleaning service businesses are currently in high demand. Home owners and building managers recognize the importance of professionally cleaning and maintaining property. They realize that proper maintenance increases property value and prevents deterioration that can lead to expensive repairs. In addition, homemakers are joining the work force in record numbers, so the need is increasing for reliable people to provide cleaning services on a regular basis. Dual wage earner families are hiring cleaning services to perform housekeeping tasks they do not have time to do.

Introduction to Small Business

A 1999 summary prepared by the Office of Economic Research of the U.S. Small Business Administration's Office of Advocacy reported a continued growth in small businesses over the past ten years. Over the 1990-1995 period, small firms created 76 percent of new jobs. New business formation reached a record level in 1998 with an estimated 898,000 new firms - the most ever, and a 1.5 percent increase over the record 885,000 in 1997. About 21 million Americans are engaged in some entrepreneurial activity, including both full-time and part-time entrepreneurship.

Businesses owned by women and minorities demonstrate significant growth. Statistics related to women-owned and minority-owned businesses are provided in Table 3.1. Additional advantages to owning a janitorial services business are cited in Table 3.2.

Statistics: Women-Owned and Minority-Owned Businesses			
Women-Owned	*Hispanic-Owned (Of any race)*	*African American-Owned*	*Asian, Pacific Islander, American Indian, and Alaskan Aleut-Owned*
Number of businesses increased 89 percent over 1987-1997 to an estimated 8.5 million.	Number of businesses increased by 232 percent from 1987-1997 to an estimated 1.4 million.	African American-owned firms increased 108 percent from 1987 to 1997 numbering 881,646.	Number of Asian and other minority-owned firms increased 180 percent from 1987 to 1997 to about 1.1 million.
Employed some 23.8 million employees (about 18 percent), up 262 percent over 1987-1997.	Number of employees grew 464 percent over 1987-1997 to 1.5 million workers.	Employed more than 580,000 employees, up 165 percent over the previous decade.	Number of employees working for these businesses grew 432 percent from 1987 to 1997, to 1.9 million workers.
About 4.7 million women will be self-employed by 2005, up 77 percent from 1983, compared with a 6 percent increase in self-employed men.	Businesses made up nearly 44 percent of all minority-owned firms in 1997, up from 34.8 percent in 1987.	African American-owned firms made up 27.4 percent of all minority-owned firms in 1997.	Asian and other minority-owned firms made up 32.9 percent of all minority-owned firms in 1997, a slight increase over the 31 percent share in 1987.

Table 3.1

The service industry continues to be the largest creator of new jobs, adding 563,000 in 1998. Small businesses concentrated in the trade and service sectors are growing most rapidly. Projections made by the Bureau of Labor Statistics (BLS) indicate that small business will contribute about 60 percent of new jobs from 1994 to 2005. About 88 percent of the new jobs will be in retail trade or services.

Starting a Business in Housekeeping and Maintenance Services

In 2000, a study was conducted to discover who makes up the housekeeping and maintenance services industry (no distinction was made between large and small companies). Entrepreneurs were found to be 88.5% male and 11.5% female. Caucasians made up 85.4%, African Americans 6.2%, and Hispanics 3.8% of the population.

12 Excellent Reasons to Own a Janitorial Service Business

- It is recession proof. If there is such a thing as a recession proof business, this is it.
- It is needed by nearly all commercial and industrial firms; there is never a shortage of potential customers.
- It is in constant demand and is the kind of service that is used over and over.
- It takes a certain skill to do professional work, yet anyone with average intelligence can master the basic cleaning procedures in a relatively short time.
- It pays incredibly well; it is possible to gross $100,000 to $5,000,000 a year full-time, and in some cases well beyond that; or $20,000 to $45,000 a year part-time, if you are willing and able to work at it.
- It makes an excellent part-time or full-time business.
- It has opportunities for absentee ownership; someone else can manage your business for you once you have it well organized and systematized.
- It is a good family business. If there are teenage children or young adults in the family, they can have a share in making it a success.
- It does not require a great deal of capital to get started.
- In the early stages of the business, it can be operated from your own home, which provides convenience and tax advantages.
- It is a fast-growing business, especially when the word gets out that you provide high quality, dependable service.
- It will build equity. In just a few years you will be able to sell your business for up to $1,000,000, possibly several million dollars, depending upon how large you build it.

Source: Reprinted with permission of Clean-Pro Industries, Inc., PO Box 6350, Portland, Oregon 97217, *www.cleanproindustries.com*

Table 3.2

When starting a housekeeping and maintenance services business, an individual can receive assistance from a variety of professionals. Attorneys, accountants, bankers, and insurance agents can provide information and guidance for developing a new business. Additional resources include small business development programs sponsored by state universities and, if the business is a franchise, the franchisor's support staff.

The ***U. S. Small Business Administration (SBA)*** is another resource for information. This agency offers a "Small Business Start-up Kit" that addresses concerns common for new business owners, such as:

- Finding financing
- Borrowing money
- Types of business loans
- Small Business Administration financial programs
- Business licenses
- Government regulations
- Tax information

Other available SBA programs and services include training and educational programs, advisory services, publications, and financial and contract assistance. The SBA also offers specialized programs for women business owners, minorities, and veterans. The SBA has offices located around the country. Consult the local telephone directory under U.S. Government or access the web site available at *http://www.sba.gov/regions/states.html.*

Types of Services. Businesses offering housekeeping and maintenance services can be started with a minimal investment of money. Many large cleaning services began as small entrepreneurial businesses. Initially, for the entrepreneur, the hours are often long - taking phone calls and arranging cleaning schedules after business hours and on weekends. However, after the business is established, it is common for owners to work an average of 45 hours per week and earn $67,500 per year. But in order for an entrepreneurial cleaning service to be a success, the business owner must have knowledge and experience in hiring, training, and supervising a housekeeping staff; marketing; financial planning; and record keeping.

Upon starting a cleaning service, the entrepreneur must decide what services to offer. One way to determine this is by contacting other cleaning services to find out what services they offer and what fees they charge. In addition, friends and acquaintances can be asked their opinions as to which cleaning services they use and what they like, dislike, or would like to see offered.

The type of cleaning service a business chooses to offer may depend upon personal preference for hours of operation. People who hold other jobs during the day or evening operate many housekeeping and maintenance services businesses. A person working an evening shift at one job may choose to operate a residential cleaning service during the day, while a person who works their first job during the day may choose to operate a business maintenance service during the evening. An advantage of owning a business is having the flexibility to adjust the work to fit a desired schedule.

Housekeeping services provided for private residences include a wider variety of tasks than services provided in businesses. Tasks not usually considered to be standard cleaning procedures, and that often carry extra fees, may include:

- Thorough cleaning of the entire home
- Loading and operating the dishwasher
- Cleaning range tops and ovens
- Defrosting and cleaning refrigerators and freezers
- Cleaning closets and storage areas
- Shampooing carpets
- Waxing and polishing floors
- Operating laundry equipment

General services for businesses include mopping and vacuuming floors; cleaning and disinfecting bathrooms; and dusting furniture, windowsills, and ledges. Some housekeeping and maintenance services offer specialized cleaning. Often, these services will be those that require specific equipment and supplies, are more labor intensive, or are not offered by many businesses within the local area. Specialized services may include:

- Carpet cleaning/steaming
- Furniture upholstery cleaning
- High-level cleaning
- Floor sealing
- Ceiling restoration
- Crime scene cleanup

Pricing the Services. Fees for housekeeping and maintenance services are usually based on an hourly rate or a package price. A ***package price*** is a set fee for certain cleaning services. Package prices are usually based on the number of rooms to be cleaned and they remain the same regardless of the amount of time taken to complete a job. Special services, such as window washing, carpet cleaning, wall washing, floor refinishing, and closet cleaning, are not ordinarily included in a package price. These are considered to be extra services and are charged separately. A lower fee is usually charged to daily, weekly, and biweekly customers since their homes or offices are easier to maintain than monthly or one-time customers.

Occasionally, home owners or businesses shopping for housekeeping and maintenance services may request bids. A ***bid*** is an offer of a set price that is charged for services rendered. A thorough understanding of the costs involved in performing each service is necessary to ensure that bids allow for profit. For example, the housekeeping and maintenance services owner will want to estimate the time needed to complete the job, the staffing required, and how much money may have to be spent on additional equipment and supplies. Bids should cover the costs of labor and materials plus ensure a profit, some of which is used to pay for business-related expenses. These expenses include but are not limited to the following:

SERVICE
GIVE US A TRIAL
AND BE CONVINCED

- Advertising costs
- Office supplies
- Vehicle upkeep and repair
- Liability insurance - both vehicle and property
- Worker's Compensation Insurance
- Employee medical insurance

When pricing specialized services, the housekeeping and maintenance services owner might visit the residence or business, survey the size of the area to be cleaned, make a list of all services the customer expects, and prepare a written bid. The written bid should list each service to be performed, the fee for each, and the total cost. After studying the bids received, the customer usually chooses the lowest bidder to provide services. Usually, the customer signs the written bid to show agreement with the offered services and the proposed price. A copy of the signed bid should be given to the customer.

Hiring. Labor costs account for approximately 50 percent of all operating expenses, so hiring and keeping good employees is a must. In the housekeeping and maintenance services industry, employee turnover rate is estimated at 200 to 300 percent per year. This means that twice, even three times per year, a business owner may have all new people working for the company each and every year.

Help needed

Locating hard-working, loyal, and trustworthy individuals to fill staffing needs can be difficult. One of the best places to look for new people is by asking current employees for references. Often, employees will know someone to recommend. Plus, a good employee will sometimes know someone else who is just as good. Other sources include churches, schools, and school-associated social groups. Advertising in a church bulletin or a college or technical school newspaper can access potential employees. College students can work out well for part-time employment, such as working three to four hours per evening or on weekends.

Advertising in the "Help Wanted" section of the local newspaper is one way to seek potential workers. A well-written "Help Wanted" ad should state very clearly the job qualifications and whether job references and work experiences are expected. Other sources include Internet web sites on which businesses can list a "Help Wanted" ad and ask for resumés or an e-mail response from interested parties. It is predicted that, in the future, the Internet will be one of the major ways of searching for and hiring people.

Training. When hiring new people, it is important to take the time to train and work with them and let them know exactly what is expected of them. It is not always necessary for the owner to train new employees themselves. Often, two or three long-term employees can work with a new person for a few days to do any necessary training.

Some companies purchase and supply uniforms for their employees. This is preferable to employees wearing their own clothing because uniforms with business identification are helpful for home owners' security. If uniforms are not provided, employees of a cleaning service should wear comfortable clothes while working. An apron with several large pockets is helpful in organizing needed supplies. Frequently used supplies, such as cleaning cloths and spray cleaners, can be carried in apron pockets. In addition, small pieces of trash can be placed in the pockets until they can be placed in a trash collection bin. Supplies that are not used as frequently can be placed in a hand-held caddy or organized on a housekeeping cart.

TRAINING SEMINAR IN SESSION

Organization, speed, and efficiency are necessary to succeed in the housekeeping business. Scheduling job locations as close together as possible allows more time to be spent working rather than traveling from job to job. The time employees spend traveling between jobs is referred to as ***down time***.

In order to complete tasks efficiently, the owner of a housekeeping and maintenance services operation may appoint cleaning teams of two to three employees. A team of two or three people can clean an area faster than one person. Therefore, a team can complete more tasks during a day than an individual. This results in more profit for the business.

The business owner or an appointed supervisor should inspect the work done by teams. If necessary, the owner or supervisor can provide suggestions for improving the quality of work. This is important since customers choose not to do business with services that provide inadequate cleaning. A fair price, dependable service, quality work, and friendliness will positively promote a cleaning service and result in referrals and increased business.

Equipment and Supplies. The housekeeping and maintenance service, rather than the customer, should provide equipment and supplies for each cleaning job. This procedure saves the cleaning service time and money because the owner can make sure that supplies are always available and equipment is always working properly. The owner of a cleaning service should be trained in performing simple repairs on equipment. The owner can save money by completing simple repairs since equipment is not out of use for an extended amount of time. Equipment that is in a repair shop for several weeks results in lost profit since tasks requiring the equipment cannot be completed.

Government control of workplace chemicals is an important issue, so most business owners supply the chemicals used by employees. However, to save on business start-up costs, the entrepreneur may require employees to have their own vacuum cleaners and cleaning supplies. Employees are provided with a list of standard cleaning supplies that they then purchase on their own. The owner reimburses the cost of the supplies through the employees' paychecks. This method eliminates the need to have a large inventory of equipment and cleaning supplies on hand.

Locating a reliable cleaning supply company is important when the entrepreneur decides to provide the cleaning supplies for the employees. Cleaning supply companies often provide up-to-date information on new products and equipment, training on the effective and safe use of products and equipment, and information regarding government safety requirements.

Insurance. Customers will want to see proof of insurance. People expect to see the words bonded and insured in company advertising and on business cards. A ***bond*** is an insurance contract bought through a bonding agency. Bonds have one purpose, to protect customers on the occasion that an employee is caught stealing from them. Before the insurance company pays out on a bond, there must be some sort of trial or court hearing in which the employee is proven guilty.

Liability insurance is insurance that covers the cleaning business owner in cases of injury or property damage that result from accidents or carelessness on the part of employees. Another type of insurance is ***vehicle insurance***. It insures the business owner for damage to any company vehicles. ***Property insurance*** covers the business owner in case of damage or theft of company property. This is the basic coverage needed to protect the housekeeping and maintenance service business owner.

Worker's Compensation Insurance pays for medical expenses from on-the-job accidents and work-related illnesses for employees, not for the business owner. Exactly what worker's compensation insurance must cover is determined by each state. Policies may pay for the following benefits:

- Medical
- Disability income
- Rehabilitation
- Death

Marketing. A housekeeping and maintenance service business must be promoted for it to become successful. The overall marketing objective of a cleaning service is to attract a group of regular customers and provide them with housekeeping services on a scheduled basis. Most residential customers prefer daytime service while businesses often prefer service after regular business hours.

A new business owner can create interest in the business by using various promotions. A ***promotion*** is an action that purposefully causes interest to be created in a business, and it is usually used to attract customers. Before distributing promotional materials, individuals should contact local authorities regarding requirements for advertising or selling services door-to-door. Methods of promotion include the following:

- Personal sales visits to businesses or homes
- Telephone marketing campaigns
- Referrals from personal or professional contacts
- Hand-delivered flyers placed on local bulletin boards, distributed to potential customers, or placed in the doors of homes in a targeted area

Cost Cutting
COUPONS!

Business cards, flyers, and brochures can be prepared at a reasonable cost, but they should reflect a professional image. Individuals often associate the quality of a business with the quality of its printed material. Therefore, individuals are more likely to choose to do business with a firm that projects a professional image than one that displays a sloppy image.

For the new business, it is best to have someone in the office at all times to answer the phone and greet walk-in customers. However, if this is not possible, use of an answering machine or answering service will ensure that the owner misses no potential customers when out of the office. An even better solution is to invest in a pager or a cellular phone. People like to talk to real people and the business will grow faster if someone is available via the phone more often and quickly. Other marketing considerations include:

- Occasional newspaper ads

- Radio spots
- Yellow Pages advertising
- Business web site

Probably the biggest mistake small business owners make is to stop marketing when business is good. To build a long-term successful business, marketing must be an ongoing activity.

Electric Commerce

More small businesses are using electronic commerce. ***Electronic commerce***, sometimes referred to as e-commerce, is defined as the electronic sales of goods using Internet and Electronic Data Interchange (EDI) distribution systems.

- More than 4.5 million small employers (83% of all employers) used computer equipment in their operations in 1998.
- The number of small businesses with access to the Internet nearly doubled between 1996 and 1998, from 21.5 percent in 1996 to 41.2 percent in 1998.
- Surveys show that small businesses using the Internet have higher revenues, averaging $3.79 million compared with $2.72 million overall.
- For 78 percent of small business owners, the major reason for having a web site is to reach new and potential customers, and 35 percent maintain a web site.
- It is projected that by 2002, small firms will earn $25 billion in e-commerce sales.

Business Failure

Currently, statistics indicate that 80% of all new businesses fail within three to five years. One basic reason for this failure is a lack of business knowledge and operation know-how. Poor management, limited business experience, and insufficient or inadequate marketing techniques are the main reasons new businesses fail. Small business is one of the most important elements in our society. Over 90% of businesses are small. They employ about 50% of all employees and create approximately 90% of all new jobs. It is vital that entrepreneurs have the skills, training, and education necessary to ensure success in the housekeeping and maintenance services business.

Lost Our
LEASE

◆ Essential Questions ◆ Owning a Small Business

1. What advantages are associated with owning a cleaning service?
2. What types of assistance are available to housekeeping and maintenance services business entrepreneurs?
3. What types of services might be offered by a housekeeping and maintenance cleaning service? How might entrepreneurs decide on what type services to offer?
4. What factors should the entrepreneur consider when offering a bid for a job?
5. What are some sources for locating individuals to fill staffing needs?
6. What are some examples of ways to promote a housekeeping and maintenance services business?
7. How has computer use impacted small businesses?
8. What knowledge and experience are needed to make a cleaning service successful?

OWNING A FRANCHISE

Starting a small business is a huge undertaking. It is hard to learn new skills and take on new responsibilities. Many times, the uncertainty of the future keeps people from taking that entrepreneurial step. In this case, a cleaning franchise may enable an individual to open a business.

Purchasing a cleaning franchise is an option for those who desire to own a cleaning service but are in need of assistance. A ***franchise*** is a right or license granted to an individual or group to market a company's goods or services. A ***franchisor*** grants a franchise and offers three types of assistance:

- A territory
- The right to use the franchise name – including the trade name, trademark, and logo
- A proven marketing strategy for a product, service, or method

A ***franchisee*** is a person or group to whom a franchise is granted. Generally, a franchisee makes a large payment up front, known as a capital investment. This fee, approximately $25,000 to $100,000, is paid in exchange for the expertise and widely-known image of the franchisor. Often the fee includes the cost of start-up stock. The franchisor also provides assistance in implementing training programs and operating support services, such as payroll and billing.

Since the purchase of a franchise requires a large amount of capital, the prospective business owner should contact an accountant, attorney, and banker before making the purchase. These professionals can help the franchisee make financially sound decisions. In addition, the advantages and disadvantages of owning a franchise should be considered before a franchise is purchased. Advantages and disadvantages of owning a franchise include the following:

- Advantages
  - –The established reputation and name of the franchisor helps attract business.
  - –The franchisor can offer a proven marketing strategy, including advertising and sales incentives.
  - –Training and guidance may be provided to start the business. The franchisor may assist in organizing the business, ordering supplies, bookkeeping, and conducting regular training meetings.
  - –Financial assistance is sometimes provided in the form of credit, low interest loans, or insurance available through the volume buying power of the franchisor.

- Disadvantages
  - –Franchisees must buy supplies and products from designated or approved suppliers.
  - –In addition to the original investment, the franchisee must pay the franchisor royalties. A ***royalty*** is a share of the proceeds paid to the franchisor. Royalties are often a percentage of gross sales (commonly 5-8 percent) rather than a percentage of profits, and they are paid for the life of the franchise contract.
  - –The franchisor may choose not to renew the contract when it expires (often yearly).
  - –The contract may be terminated by the franchisor for any reason stated in the contract.
  - –If the contract is revoked, the franchisor will pay the franchisee for equipment, supplies, and stock on hand. This amount is often much less than the franchisee's total investment.

A franchisee is expected to abide by rules that are established in the franchise contract. Franchise contracts often have strict guidelines that may affect the selling of the business, expansion of the business, or advertising of goods and services. The franchisor may also choose publications in which the franchisee can and cannot advertise.

◆ ◆

Essential Questions: Owning a Franchise

1. What are some reasons why individuals purchase franchises?
2. What three types of assistance are granted by a franchisor?
3. What are some advantages of owning a franchise? Disadvantages?

Chapter Highlights

- Cleaning service businesses are currently in high demand. The field of institutional maintenance provides rewarding opportunities for individuals to own their own residential or business cleaning services.

- The owner of a cleaning business needs to have the ability to set fees for cleaning services, make bids on prospective jobs, efficiently schedule cleaning jobs, inspect the work of employees, and provide employees with cleaning equipment and supplies.

- It is important for the business owner to be insured. The basic coverage needed to protect the housekeeping and maintenance service business owner includes an insurance contract bought through a bonding agency, liability insurance, vehicle insurance, and property insurance.

- A successful cleaning service relies on promotions and the advice of professionals in order to attract a group of regular customers.

- Statistics indicate that 80 percent of all new businesses fail within three to five years. Poor management, limited business experience, and insufficient or inadequate marketing techniques are the main reasons new businesses fail.

- Individuals who desire a proven marketing strategy for a product, service, or method can purchase a franchise. The purchase of a franchise involves an investment of capital in exchange for a right or license granting an individual permission to market a company's goods or services.

Chapter 4

Achieving Job Success

Chapter Focus

The following Essential Knowledge and Skills are discussed in this chapter:

- 10B Demonstrate effective methods to secure, maintain, and terminate employment.
- 10D Evaluate the relationship of good physical and mental health to job success and achievement.
- 10E Demonstrate appropriate grooming and appearance for the workplace.
- 10F Demonstrate appropriate business and personal etiquette in the workplace.
- 10G Exhibit productive work habits and attitudes.
- 12B Exhibit ethical practices as defined by the institutional maintenance management and services industry.

Chapter Vocabulary

- accuracy
- attitude
- communication
- confidentiality
- constructive criticism
- cooperation
- criticism
- dependability
- ethics
- health
- honesty
- initiative
- open-minded
- personal appearance
- professionalism
- prompt
- self-control

Finding a job that offers personal satisfaction, adequate wages, and opportunities to learn and advance is a major accomplishment. It takes time and effort not only to look for a job but also to keep a job. In order to become successful employees, individuals must possess qualities desired by employers. Employers look for desirable qualities when individuals apply for jobs. Employers also consider these qualities when evaluating employees after they are hired. Failure to keep a job is often due to a lack of desirable personal qualities rather than a lack of job skills.

Personal qualities can be developed and improved when individuals make sincere efforts to do so. Through honest self-evaluations, individuals can determine personal strengths and weaknesses. By recognizing personal traits, individuals are provided with opportunities to improve the interpersonal qualities that better prepare them for future employment and a productive personal life. Personal traits considered to be important by employers include the following:

- Positive attitude
- Self-control
- Initiative
- Personal appearance
- Communication skills
- Professionalism
- Dependability
- Accuracy
- Cooperation
- Honesty

ATTITUDE

Attitude can be defined as the way a person thinks and feels, which influences the way that person acts. A positive attitude promotes an optimistic outlook on life. In the workplace, a positive attitude relates to thinking about the job in a favorable manner. It is easier to secure and keep a job when one has a positive attitude. Ways in which positive attitudes are expressed are through enthusiasm and a willingness to learn.

Enthusiastic individuals make productive employees. These types of people concentrate on the positive attributes of a job as well as the positive attributes of other people. Positive attitudes are demonstrated through traits such as the following:

- Cooperation
- Loyalty
- Optimism
- Patience
- Respect
- Enthusiasm
- Interest
- Willingness

Positive Attitude

People with positive attitudes achieve goals more easily and suffer less from stress than do people with negative attitudes. Often, a negative attitude can cause individuals to perceive problems as more serious than they are in reality. Employees with positive attitudes are more likely to carry out job responsibilities effectively and create a pleasurable work environment. Coworkers, supervisors, clients, and customers are more apt to share a good working relationship with individuals who demonstrate a positive attitude.

Individuals with positive attitudes practice open-mindedness and avoid gossiping about others. Being ***open-minded*** means having the ability to accept suggestions and constructive comments from supervisors without feeling hurt or angry. Relationships between coworkers and supervisors can be damaged by gossip. Negative comments about coworkers tend to cause other employees to develop negative impressions about those who are being discussed. When negative attitudes are formed, it becomes difficult to demonstrate open-mindedness and fairness to others.

People with negative attitudes can be pessimistic and have a negative outlook on life. Often, these attitudes can lead to uncontrolled expressions of anger and irresponsible behavior. On the other hand, people with positive attitudes are enjoyable to work with and draw the attention, respect, and approval of others. While a positive attitude can be part of the solution to a problem, a negative attitude can be part of the problem.

Demonstrating a positive attitude toward coworkers helps to maintain a pleasant work environment. The ability to get along with other people influences success in any job. Personal qualities that contribute to forming good relationships include exhibiting some or all of the following:

- A friendly, sincere manner
- A willingness to do one's share of the work
- A respect for the knowledge and skills of others
- An expressed interest in other people
- A showing of genuine interest in one's job

Loyalty

In addition to a positive attitude, it is important for employees to be loyal. Employees can demonstrate loyalty to their employer through their actions. Some methods of showing loyalty are:

- Adhering to the rules and policies of the business
- Delivering a high quality performance
- Demonstrating a caring attitude about the quality of work and services provided
- Relaying only positive comments about the business to outsiders

People can change their attitudes if they make up their minds to do so. Individuals with positive attitudes have a healthy self-concept and a bright outlook on life. With a positive attitude, people are able to direct their time, energy, and money toward the accomplishment of worthwhile goals. For obtaining job success, there is no substitute for a positive attitude.

◆ **Essential Questions: Attitude** ◆

1. What effects does a positive attitude have on job success?
2. In what way does loyalty demonstrate a positive attitude?

SELF-CONTROL

Self-control involves keeping emotions reasonably under restraint. Everyone has feelings and emotions. As people mature, they should learn to control their emotions. Controlling emotions involves the ability to avoid letting emotions dictate a person's actions.

There are times in any job situation when problems can occur and it may be difficult to remain calm. Successful employees and supervisors keep their tempers under control. Controlling one's temper helps to avoid unpleasant confrontations with coworkers, supervisors, clients or customers, and other individuals.

An individual can develop self-control by maintaining a pleasant disposition and pausing to think before speaking or taking rash actions. Learning to remain calm in difficult situations and working hard to perform well result in self-control. Through self-control individuals earn the respect of supervisors and coworkers.

There are many ways in which individuals can exercise self-control. To help control anger, for example, an individual can practice deep breathing and counting to ten before reacting. This method allows the individual to calm down and react more objectively. Exercise is another way to relieve stress. Some people vent their emotions by engaging in physical activities such as:

- Jogging
- Walking
- Basketball
- Yoga or stretching exercises
- Gardening
- Rollerblading

Regardless of the method used, it is very important to control emotions and keep them from having a negative influence on others. In general, people have difficulty tolerating others who cannot exercise self-control. Listed are some helpful guidelines for learning to exercise self-control:

- Use a calming down technique before reacting to a situation.
- Avoid acting on impulse. Take time to think before speaking or reacting.
- Avoid being self-defensive.
- Avoid jumping to conclusions. Allow people to justify their words and actions.

Constructive Criticism

Criticism is the act of analyzing and judging the merits and faults of something. The object of ***constructive criticism*** is to help individuals improve job performance or personal behavior. Constructive criticism is never offered in a mean-spirited or hateful manner. Additionally, an employer's criticism should not be given or taken in a negative manner.

Many individuals are unable to accept criticism. Learning to accept constructive criticism is an important factor in developing self-control. The ability to accept criticism and remain friendly improves an individual's job performance.

Sometimes, individuals consider criticism a personal attack. It is best to be open-minded about criticism and to use it as a basis for self-improvement. The following guidelines can help an individual to accept constructive criticism:

- Keep an open mind.
- Avoid being self-defensive.
- Accept the criticism with a smile.
- Listen attentively, quietly, and politely to the critic.
- If necessary, ask questions that will help clarify what has been said.
- Thank the critic for giving suggestions.
- Make use of criticism by applying appropriate suggestions for improvement.
- Avoid the temptation to convince critics that they are wrong in their criticism.

Working hard to perform well and obtain the respect of supervisors and coworkers makes self-control easier. Learning to accept constructive criticism in a gracious manner is an important characteristic for both employees and supervisors.

◆ **Essential Questions: Self-Control** ◆

1. How can an individual develop self-control?
2. What are some guidelines an individual can follow to accept constructive criticism?

INITIATIVE

Initiative is the ability to think and act without being prompted. An employee with initiative is willing, has the ability to observe tasks that need to be done, and completes jobs without being told to do so. Initiative is a quality that often leads to advancement within an organization.

A willingness to learn new tasks is a sign of initiative. The employee who is eager to learn will ask about opportunities for growth and learning. Employers recognize initiative by increasing responsibility to those employees who show an interest in opportunities to learn new skills. Opportunities to learn new skills include the following:

- Asking a supervisor to provide training regarding how to perform tasks
- Participating in continuing education or training

offered in the workplace
- Attending seminars offered by professional organizations
- Attending classes offered by colleges and universities

Additionally, employees can display initiative by making suggestions regarding ways to improve procedures to make them more efficient. Making worthwhile suggestions shows that employees are concerned about the welfare of the business.

Goals

Setting goals is another way to demonstrate initiative. People who establish goals are organized, focused, and in control of their lives. By setting goals, individuals leave nothing to chance.

To succeed, people must have goals. Successful people never lose sight of their goals. They always remember where they are going and how they are going to get there.

Before goals can be established and plans can be put into action, individuals must have a clear idea of not only what they want but also why they want it. It is beneficial to express goals in writing. Writing the goal or goals on paper helps to clarify thoughts.

Once goals are established, one must work toward achieving the goals. Focusing on goals gives perspective and strength for accomplishing them. Focusing on goals and taking action is often easier said than done. Taking action requires self-discipline and initiative.

Time

There is a direct relationship between goals and time. When individuals establish goals, they begin to think in terms of objectives rather than activities. Establishing goals enables individuals to make better decisions, write and speak more forcefully, and treat time as a precious commodity.

Everyone has the same amount of time – twenty-four hours a day. It is not possible to manage time. However, individuals can manage themselves and use time effectively. It is impossible to make or create time, but individuals can save time by:
- Planning ahead
- Prioritizing tasks
- Doing jobs efficiently
- Using small blocks of time that are usually wasted
- Working smarter, not harder

◆ Essential Questions: ◆
Initiative

1. How can an individual show initiative?
2. What benefits can be derived from displaying initiative?
3. What are some benefits for setting goals?
4. What are examples of ways in which individuals can save time?

PERSONAL APPEARANCE

Personal appearance refers to how an individual looks. First impressions are formed by an individual's appearance, so a good personal appearance is an important factor in achieving job success. People who have a messy appearance are often perceived as being insensitive and uncaring. Those who are neat and well groomed are considered to be intelligent, efficient, and professional. People who take care of themselves are the types of people others enjoy being around. When hiring, employers look for individuals who are clean, neatly dressed, and demonstrate pride in their appearance.

All employees benefit from having a good appearance. It is especially important for employees who have public contact to present a fashionable and neat appearance. Individuals employed in the field of institutional maintenance often perform their duties in public areas. Since employees serve as representatives for the institutions in which they work, it is important that they make good impressions on the individuals with whom they come into contact. Developing a positive and pleasing appearance can be accomplished by observing the following guidelines:

- Make needed repairs to clothing on a regular basis.
- Choose sensible clothing that is appropriate for the employment situation.
- Select clothing that fits properly.
- Select sensible shoes that are clean and in good repair.
- Have hair cut or trimmed on a regular basis.
- Wash hair as needed to maintain cleanliness and style hair daily.
- Females - apply moderate amounts of makeup to a clean face.
- Males - shave or neatly trim beard or mustache.
- Maintain fresh breath and clean teeth by brushing, flossing, and practicing dental hygiene.
- Bathe daily and use a reliable deodorant.

- Keep hands cleaned and nails well manicured.
- Maintain proper posture when sitting, standing, and walking.
- Make a habit of smiling.

Health

Health is the condition of both body and mind. Eating nutritiously, exercising regularly, and getting plenty of rest contributes to good health. Healthy people are energetic, mentally alert, and suffer less from illnesses. When a person enjoys good health, it is reflected in personal appearance.

Nutrition

Nutrition is the foundation for good health. Failure to eat a balanced, nutritious diet can lead to an inability to concentrate, feelings of indifference, and depression. Additionally, nutrition plays an important role in the prevention and treatment of certain diseases and health problems. The body's ability to resist common illnesses, such as colds, is directly related to nutritional health.

Exercise

People who exercise regularly have increased energy levels, do not tire easily, and have a general feeling of health and well being. People who exercise daily most generally have a positive outlook on life. Combining exercise with nutritionally balanced meals better prepares the body for fighting disease and maintaining good health.

Sleep

Sleep restores the body and recharges the brain. Most people need at least eight hours of sleep a night. A good night's rest leaves one feeling refreshed, energetic, and motivated. Bright eyes, shiny hair, and a friendly smile are natural outcomes from proper rest. People who do not get adequate sleep find it difficult to concentrate and are likely to make careless errors.

Some ways in which good health and poor health affect personal appearance and attitude are listed in Figure 4.1.

◆ **Essential Questions: Personal Appearance** ◆

1. Why is personal appearance an important factor in achieving job success?
2. How can a positive and pleasing appearance be developed?
3. How does each of the following impact personal appearance: health, nutrition, exercise, and sleep?

COMMUNICATION SKILLS

Communication is the process by which ideas, feelings, and information are shared. Information, such as ideas, data, and instructions, is exchanged in the workplace daily. Therefore, the ability to communicate effectively with other people is important in succeeding on the job.

Skills necessary for effective communication include listening, speaking, reading, and writing. It is also important to learn to pronounce words correctly, use correct grammar, and become familiar with terms used in a particular job setting. Employees must be able to use these skills to send and receive messages that can be clearly understood.

An individual's voice characteristics are also an important factor affecting communication. Being aware of the loudness of one's voice and avoiding loud talking in a job situation is appreciated by coworkers, supervisors, and other individuals. However, it is important that employees speak loudly enough to be heard and use a pleasant tone of voice. Appropriate use of communication and vocal skills is one of the most important interpersonal qualities needed by employees in all

Signs of Good Health	Signs of Poor Health
• An optimistic attitude	• Depressed, tired
• Energetic	• Lacks energy
• Ability to cope with everyday life	• Poor attendance at work
• Ability to concentrate	• Frequent accidents on the job
• Good job attendance	• Inability to keep a job
• Few reports of illnesses	• Catches colds and other infections easily
• Ideal weight for height and age	• Lack of sleep
• Healthy teeth and gums	• Overweight or underweight
• Erect posture	• Body slumps
• Clear and smooth skin	• Scaly, poor skin color
• Shiny and healthy hair	• Dull, brittle hair
• Clear and bright eyes	• Bleeding gums, cavities in teeth
	• Sore, red, and itchy eyes

Figure 4.1

work situations. Additional information regarding communication skills is presented in Chapter Six.

◆ Essential Questions: ◆
Communication Skills

1. What skills are necessary for effective communication?
2. How do a person's voice characteristics affect communication?

PROFESSIONALISM

Professionalism is competent behavior of a high standard or status. Professional behavior is exhibited when an employee's performance is above the standards set for tasks and when the employee is loyal, considerate, and respectful to supervisors and other coworkers. Also, professional dress is important for creating a professional image. Employees are more likely to gain the respect and attention of supervisors and coworkers when they are well groomed and wear clean clothing that is appropriate for the job.

Professionalism involves professional behavior and professional growth. Membership and active participation in professional organizations indicates that an employee is interested in the profession and in personal and professional improvement. Professional growth opportunities are offered by most professional organizations. Types of growth opportunities include:
- Local chapter meetings
- Regional conferences
- Technical and managerial seminars
- Certification - credentials earned through course work and testing
- Continuing education through classes, long-distance learning, or self-study

Generally, publications from professional organizations are included with membership. These journals provide current information on various aspects of a field. Information provided by professional publications varies according to one's field of employment. For example, a professional publication in the field of institutional maintenance may provide:
- Detailed industry trends and regulations
- Information on legal issues
- Field-related products, supplies, and equipment
- Management trends and ideas

Ethics

True professionals follow high standards of personal behavior known as ethics. ***Ethics*** are standards of professional conduct. As employees gain work experience, they become familiar with the general rules of conduct in the business world. Some general guidelines for ethical behavior in the workplace include:
- Be honest in relationships with others.
- Respect supervisors, coworkers, and others.
- Observe the law.
- Be accountable for your decisions.
- Create a good reputation.
- Be fair.

Specific industries have ethical standards that are common to that field. Professional organizations often promote a code of ethics for a given industry.

Confidentiality

A successful employee is ethical on the job. An ethical employee follows the rules of the establishment and the rules of confidentiality. ***Confidentiality*** means not sharing personal information about supervisors, co-workers, or other individuals with someone outside of the situation. Also, financial transactions should be kept in strictest confidence. Failure to do so reflects poorly on the employee and the business. All in all, employees should strive to achieve professionalism since it often prepares them for advancement into positions requiring higher skill levels.

◆ *Essential Questions: Professionalism* ◆

1. In what ways can an individual exhibit professional behavior?
2. How can a person grow professionally?

DEPENDABILITY

Establishing a record of dependability is an effective way for employees to contribute to the smooth operation of a business and to be considered for promotions. ***Dependability*** is the ability to show consistency in following through with tasks and responsibilities. For example, employees are considered dependable when they have the ability to work under pressure without becoming nervous, irritable, inefficient, or overly upset. Maintaining high standards and producing quality work, even when work is boring, is another sign of dependability.

Employees who have good attendance and are prompt are considered to be dependable. Being ***prompt*** means arriving to work on time and completing assigned tasks in a timely manner. An employee who is prompt creates a favorable impression by preventing delayed performance of tasks. It is important for employees to be prompt since tardiness and absenteeism can affect a company's productivity.

There are times when being absent from or late to work are unavoidable. An employee who will be absent or late should call the supervisor as soon as possible so that a substitute worker can be obtained or duties can be restructured. In many cases, employers dismiss employees who interfere with productivity.

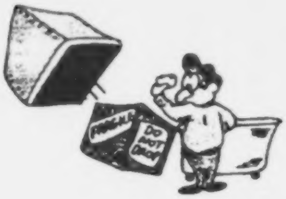
◆ *Essential Questions: Dependability* ◆

1. In what ways can an individual establish a record of dependability?
2. Why is dependability an important interpersonal quality?

ACCURACY

Accuracy is freedom from mistake or error. People concerned with accuracy in their work are thorough and exact. An employer expects employees to perform work accurately since accuracy helps to avoid costly mistakes and injuries.

Often, employees are evaluated on their ability to follow instructions and perform tasks accurately. The ability to follow instructions exactly as the procedure manual outlines or as the supervisor directs



is important to company productivity. Paying attention to details rather than being careless in work habits helps an employee develop accuracy.

◆ **Essential Question: Accuracy** ◆

1. Why do employers expect employees to be accurate?

COOPERATION

Cooperation is the act of working with others to reach a common goal. It includes the willingness to listen to other people's views and opinions. Employees cooperate with employers by becoming familiar with and following the rules and policies of the workplace. Cooperation is demonstrated through a willingness to complete assigned tasks with a positive attitude.

When personality problems exist between employees, it is important for them to avoid petty differences and work together as well as possible. Willingness to cooperate with co-workers and supervisors without insisting on doing things a particular way contributes to a productive and positive work environment for all employees.

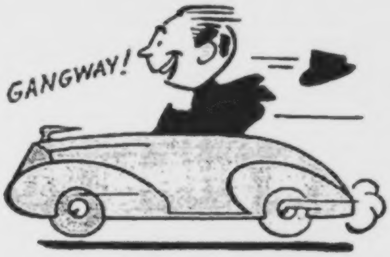
◆ **Essential Question: Cooperation** ◆

1. In what ways can employees cooperate with coworkers and supervisors?

HONESTY

Honesty means being trustworthy, fair, and sincere. Employers expect employees to show honesty by maintaining high ethical standards, telling the truth, and handling the employer's possessions with care. Dishonest behavior includes stealing from a company and using company property for personal use. Although stealing money from an employer is a major offense, some employees take items purchased by the company without considering the act as stealing. Listed are some examples of employee theft:

- Taking home office supplies such as pens, pencils, and paper clips
- Using the office FAX machine for personal business
- Using the company phone for personal calls
- Using the office copier for personal business
- Using company vehicles to run personal errands
- Using company equipment without authorization



Computers and the Internet have made many types of work easier to perform with such applications as desktop publishing, word processing, and accessing information from the World Wide Web. However, some employees are guilty of using company computers for personal business, such as:

- Checking e-mail accounts on company time
- Surfing the Web
- Engaging in on-line games and activities
- Printing out web site pages that are not work related

Employers have access to a computer program that allows them to scan an employee's web site history. This program maintains a history of visited web sites for up to one month. Employees who consistently use the company computer and Internet for personal browsing may find themselves out of a job.

The most common item employees steal from their employers is time. Employees who report to work late, take extra time at breaks, leave work early, remain idle, and visit with other employees are using company time for personal use. An employee should show honesty by providing the employer with a full day's work in exchange for wages. Dishonest behavior is a common reason for employee dismissal.

◆ Essential Questions: ◆ Honesty

1. How can individuals show honesty?
2. What are some consequences of practicing dishonest behavior?

Chapter Highlights

- Desirable interpersonal qualities are important since they often influence decisions regarding the hiring and evaluation of employees.
- A positive attitude includes thinking about work in a favorable manner, showing enthusiasm and willingness to learn, developing an attitude of loyalty to one's employer, being open-minded, avoiding gossiping, having the ability to get along with other people, and showing respect for the knowledge and skill of other employees.
- Employees should learn to use self-control by keeping tempers under control, maintaining a pleasant disposition, pausing to think before speaking or taking rash actions, and learning to accept and use criticism.
- An employee with initiative observes tasks that need to be done and completes them without being told to do so, has the desire to learn new tasks, and has the ability to make worthwhile suggestions for improvements.
- Appearance affects the way others react to an individual, creates a first impression, and influences how individuals feel about themselves.
- Skills such as listening, speaking, reading, and writing are necessary for effectively communicating information and ideas to other people.
- Professional behavior is exhibited by performing above set standards, showing loyalty and respect for superiors, being well-groomed and wearing appropriate clothing, becoming active in professional organizations, and participating in continuing education programs.
- Employees are considered to be dependable when they are able to work under pressure, maintain high standards, produce quality work, have good attendance, and are prompt.
- Employees are expected to display accuracy by following procedures and instructions and producing thorough, exact work that is free of mistakes.
- Employees show cooperation by listening to other people's views and opinions, becoming familiar with and following the rules and policies of the workplace, and completing assigned tasks with a positive attitude.
- Honest behavior includes maintaining high ethical standards, telling the truth, handling an employer's possessions with care, and providing a full day's work in exchange for wages.

Chapter 5

Maintaining Client Relationships

Chapter Focus

The following Essential Knowledge and Skills are discussed in this chapter:

8A Assess characteristics of positive client relationships.
8C Discuss issues of confidentiality, respect, and acceptance that impact client relations.
8D Describe appropriate respect and care for personal property of guests and patients.
10A Demonstrate effective verbal, nonverbal, written, and electronic communication skills.
10E Demonstrate appropriate grooming and appearance for the workplace.
10F Demonstrate appropriate business and personal etiquette in the workplace.

Chapter Vocabulary

character traits
cheerfulness
client
courtesy
empathy
friendliness
obnoxious behavior
personality
sense of humor
submissive
tact
trait

Maintaining positive relationships with clients is a vital part of any successful institution, facility, or establishment. A ***client*** is an individual for whom services are provided. Clients may be referred to as customers, patrons, or consumers. Employees in the field of institutional maintenance interact with clients on a daily basis. Housekeeping and maintenance personnel are responsible for maintaining good client relationships in order to encourage repeat business. In the field of institutional maintenance, clients include the following:

- Patients, staff, and visitors in health care institutions
- Guests, visitors, and staff in hospitality services facilities
- Tenants, employees, and business customers in public and private sector establishments
- Students, teachers, and administrators in educational institutions

There are a wide variety of health care facilities, hospitality facilities, public and private sector establishments, and educational institutions from which clients may choose. In many cases, customer service is the number one factor that attracts clients. Employees who deal with clients may find customer relations to be both satisfying and challenging.

At times, clients make demands that seem unreasonable or accusations that are unfair. However, in a client/business relationship, it is important for an employee to remember that serving the client is an important part of the job. Dealing with customers in a professional manner depends on controlling emotions and handling difficult situations calmly. Exercising self-control shows maturity and good judgement.

QUALITIES THAT CONTRIBUTE TO POSITIVE CLIENT RELATIONSHIPS

Personal qualities that contribute to job success were discussed in Chapter Four. The same qualities that contribute to overall success are extremely important in maintaining positive relationships with clients in various institutional maintenance settings. The following sections stress the importance of positive attitude, positive personal traits, appropriate grooming and appearance, and effective communication skills when relating to clients.

Positive Attitude

As discussed on pages 38 and 39, a positive attitude contributes to job success in any employment situation. It contributes to positive relationships with coworkers and supervisors, and it is critical to successful relationships with clients and customers.

Public contact and relationships. Individuals with positive attitudes practice open-mindedness and avoid gossiping about others, whether dealing with coworkers, supervisors, or clients. Institutional maintenance employees should remember that they are representatives of the company for which they work. The impressions customers have about a business, facility, or institution may be formed through their interactions with its employees. It is unprofessional for employees to talk about clients, customers, coworkers, or supervisors. Customers who overhear employee gossip may determine that the employees will gossip about them also. This type of situation reflects negatively on both the employee and the business and could result in lost business.

It is important for employees to treat one another with respect at all times especially when clients are present. Customers feel uncomfortable when visiting an establishment where employees argue or criticize each other. Cooperation among employees helps create an atmosphere in which employees work with each other and with clients. The importance of cooperation and concern for others in developing a positive attitude is illustrated in Figure 5.1.

Short Course in Human Relations

The six most important words — "I admit I made a mistake."

The five most important words — "You did a good job."

The four most important words — "What is your opinion?"

The three most important words — "If you please."

The two most important words — "Thank you."

The one most important word — "You"

The least important word — "I"

Source: Southwestern Bell Telephone Company

Figure 5.1

A housekeeping employee's high visibility and close contact with the public can result in dealing with unappreciative, overbearing, rude, intoxicated, menacing, or annoying individuals. Employees should refrain from being defensive and maintain a positive attitude. In order to keep client relationships positive, institutional maintenance personnel must keep in mind the slogan, "The customer is always right." A positive attitude can help in dealing as respectfully as possible with unpleasant clients, especially if the employee exercises self-control and does not take a client's obnoxious behavior personally.

People can adjust their attitudes if they make up their minds to do so. Individuals with positive attitudes are enthusiastic, energetic, and a pleasure to be around. For maintaining good client relationships, there is no substitute for a positive attitude.

Positive Personal Traits

A ***trait*** is a distinguishing quality, such as a personal characteristic. The combined behavioral and emotional traits of an individual make up that person's distinct ***personality***.

Some people may be described as having an outgoing personality and seem to find it easy to talk with others and to be friendly. Other people may be described as being shy and seem to find it difficult to carry on conversations with people whom they are not familiar. Words used to describe personality traits include:

- Quiet
- Shy
- Outgoing
- Aggressive (forceful or pushy)
- Assertive (demonstrates self confidence)
- Dominating (likes to be in charge)
- ***Submissive*** (prefers to follow someone else's lead)
- Energetic
- Friendly

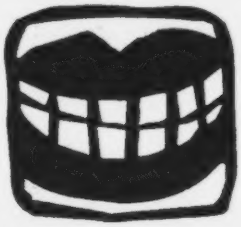
These and a variety of other traits cause a person to be perceived by others as having a certain type of personality. The institutional maintenance employee should work to develop positive personality traits that enhance client relationships. Individuals perceived as having "pleasant" personalities are more successful in establishing a sense of trust with customers and clients.

Positive character traits. ***Character traits*** are the distinguishing qualities or features that make up an individual. Some character traits are admired while others are not. Examples of character traits that are important in maintaining good client relationships include friendliness, cheerfulness, courtesy, and tact. Positive character traits cannot be developed by reading about them. It is necessary to practice the use of these traits in order for them to become a part of everyday behavior.

Friendliness. ***Friendliness*** involves displaying an attitude that is pleasant and warm. Clients enjoy entering an establishment or facility where employees greet them in a friendly, natural manner. The friendliness of employees creates a relaxed atmosphere in which clients feel comfortable. Friendly people establish a sense of trust with clients. Friendliness also helps establish a pleasant atmosphere by creating trust and cooperation among coworkers.

Cheerfulness. ***Cheerfulness*** involves being the kind of person others like to be around. People who are sullen and moody and complain frequently are not the types of people others enjoy. Cheerful people tend to make others cheerful. Sharing a smile with others is one of the most important rules of making friends and influencing people.

A sense of humor is closely related to cheerfulness. A person with a good ***sense of humor*** has the ability to see the less serious side of issues and make the best of difficult situations. It is important to maintain a good sense of humor in a job situation without becoming crude, rude, or inappropriately loud. A cheerful employee will respond by saying "sure" or "I would be glad to" rather than grumbling or complaining when asked to help with unexpected work. Remaining cheerful and staying busy improves the attitudes of other people.



Courtesy. *Courtesy* involves the consistent use of good manners. A courteous person shows respect and consideration for others while showing a willingness to cooperate. Clients feel comfortable and appreciated when treated in a courteous manner by employees. "Please" and "thank you" are examples of courteous phrases. Discourteous habits, such as interrupting people before they finish speaking and responding to a person with a rude remark, should be avoided.

Tact. *Tact* is the ability to say and do the right thing at the right time. Employees can become more tactful by considering the client's point of view. As an employee, think about how a client likes to be treated and put those ideas into practice. Avoid gossiping or visiting loudly with other employees while clients are waiting to be assisted. Avoid criticizing others and sharing confidential information. Never repeat the criticism and complaints expressed by others. In a difficult situation, try to say something kind or pleasant rather than responding negatively. Considering the client's feelings always helps to maintain positive relations.

Positive character traits can be developed. Some physical traits, such as height, cannot be changed. However, many aspects of personality and character can be changed as long as a person is willing to make the needed effort. Examples of desirable and less desirable character traits can be found in Table 5.1.

Developing positive traits. Rather than worrying about traits that are not positive, an individual should try to improve those traits that can be changed. When making a plan for self-improvement, an individual should:

- Identify positive traits to develop
- Include reasons for developing positive traits
- Prepare a specific strategy for developing traits
- Evaluate progress toward self-improvement

Generally, people who are warm, friendly, and pleasant to others are successful in establishing positive relationships. Clients enjoy being served by employees who appear to enjoy their work and who have a sincere interest in assisting others.

Desirable Character Traits	Less Desirable Character Traits
• Generous	• Greedy
• Honest	• Dishonest
• Trustworthy	• Deceitful
• Happy	• Moody
• Respectful	• Discourteous
• Modest	• Boastful
• Curious	• Indifferent
• Conscientious	• Negligent
• Thoughtful	• Impulsive

Table 5.1

Appropriate Grooming and Personal Appearance

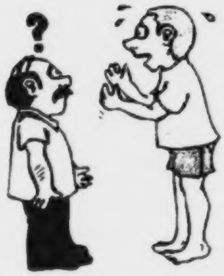
As discussed in Chapter Four, appropriate grooming and appearance are essential to job success. In the field of institutional maintenance, individuals often perform their duties in public areas. Therefore, an appropriate personal appearance is important in making a good impression on clients and presenting a positive image of the institution.

For example, it is very important that a health care institution or hospitality services facility present an image of spotless cleanliness. Employees of that institution, regardless of duties being performed, must match that image. An employee with soiled, wrinkled clothing or unwashed hair would cause clients to doubt the cleanliness of the institution's facilities. On the other hand, an employee who is well-groomed and wearing clean, unwrinkled clothing would build trust in the overall cleanliness and efficiency of the institution.

By observing the guidelines listed on page 42, the institutional maintenance employee can maintain a positive and pleasing personal appearance. This positive appearance will enhance the image of the institution and promote positive relationships between the employee and clients.

Communication and Client Relationships

Communication plays an important role in client relationships. Communicating clearly with clients and understanding their needs and wants creates a positive image for an establishment. A positive image is important in attracting and retaining clients. In order to communicate effectively, an individual must be able to listen, speak, read, and write clearly. Speaking, or verbal communication, is the most common form of communicating with clients.



Developing a broad vocabulary, using an appropriate tone of voice, and using correct grammar are important parts of verbal communication. Knowing when to speak, when to remain quiet, and when to refer problems to other employees is also important. Additional information regarding communication is found in Chapter Six.

Telephone Skills. Using the telephone requires good communication skills. In the workplace, telephone manners can help or hurt a business. Employees taking telephone calls are representing the company. Customers judge businesses by how promptly the telephone is answered and by employee attitudes. It is important for employees to give the best impression possible to all callers. One's tone of voice, pronunciation of words, and the pitch or intensity of voice all influence effective telephone communication.

It is also important for an employee to be organized and informed when communicating by telephone. Callers expect to receive information quickly and efficiently. Therefore, putting callers on hold for long periods of time is not a recommended practice. Employees should follow basic guidelines when using business phones in order to project a positive image to callers. Telephone communication techniques are summarized in Figure 5.2.

Telephone Communication Techniques

General Guidelines

- Keep important telephone numbers by the telephone. Include numbers for the police, fire department, physician or hospital, emergency service, and work place personnel.
- Become familiar with telephone terms, such as:
  - * area code
  - * collect call
  - * person-to-person call
- Be comfortable with how to use the local telephone book.
- Have the employer cover any specific telephone information to be used in the employment situation.
- Keep paper and pencil near the telephone to record messages, names, and other important information efficiently.
- Speak clearly and distinctly. Do not chew gum, candy, or food while using a business telephone.
- Focus attention on the telephone conversation and avoid unnecessary interruptions.
- When a situation requires your leaving the line, do the following:
  - * Explain to callers why they are being put on hold.
  - * When returning to the telephone, thank the person for their time spent waiting.
  - * If callers must wait for several minutes, check with them periodically and thank them for holding.

Receiving Calls

- When the telephone rings, answer it promptly.
- Follow company policy and the supervisor's instructions as to how to answer the telephone properly.
- When taking a message, do as follows:
  - * Record the caller's full name. To ensure accuracy, ask for a spelling of the name.
  - * Ask for the caller's telephone number. Repeat the number to ensure that it is correctly recorded.
- Always be courteous to individuals who misdial and reach your place of business by mistake.

Placing Calls

- Before placing a call, prepare a list of items to be discussed. During the conversation, check off each item as it is covered.
- Identify yourself and the name of the establishment represented.
- Record important points discussed during the conversation.
- Be courteous and apologize when a wrong number is reached.
- Limit personal telephone calls to emergencies and urgent matters.

Figure 5.2

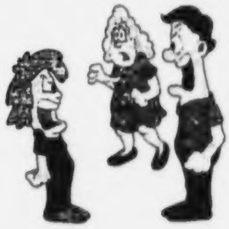
◆ Essential Questions: ◆ Qualities that Contribute to Positive Client Relationships

1. What types of clients are served in the field of institutional maintenance?
2. Why is it important for employees to exhibit positive attitudes in the presence of customers?
3. What are examples of traits that combine to form an individual's personality?
4. What character traits are important in maintaining good client relationships? Why is each of these traits important?
5. What are examples of traits that an employee should work to improve?
6. What steps are included in developing a plan for self-improvement?
7. How does the personal appearance of an employee affect an institution's image?
8. How does communication affect client relationships?
9. What actions are involved in communicating effectively?
10. In what ways can individuals project a positive image when using the telephone?

INDUSTRY-SPECIFIC METHODS OF MAINTAINING CLIENT RELATIONSHIPS

Health Care Institutions

In health care institutions, housekeeping and maintenance personnel encounter a variety of individuals who may be experiencing pressure and tension. Therefore, it is important for the housekeeping staff to be sensitive to clients' needs. In all public areas, employees should avoid behavior that could be considered rude or annoying, such as:
- Talking loudly
- Whistling
- Singing
- Using objectionable language
- Jingling coins or keys
- Banging or dropping equipment



Employees approached by visitors and patients asking for directions should be given accurate instructions in a pleasant manner. When confronted with patient or visitor requests, housekeeping employees should be sympathetic listeners. If patients or visitors are overly demanding, unfair, or unkind, the housekeeper should remain calm and report the situation to a supervisor.

The following guidelines will help maintain good relationships among clients as well as coworkers:
- Avoid talk about personal problems, politics, religion, and the condition of patients.
- Do not speak unfavorably of the health care facility or coworkers.
- Do not provide any unauthorized information.
- Do not attempt to solicit business from or sell items to patients or visitors.
- Address staff members by their proper titles.
- Show courtesy to administrative staff, medical staff, patients, and visitors.

Hospitality Services Facilities

In the hospitality services industry, housekeepers play an important role in maintaining good client relationships. Often, hospitality facilities are judged both by the services they provide and by the individuals providing the services. A clean room does not always convince clients that efforts are being made to make them feel special. Therefore, hospitality facilities provide extra services to demonstrate to guests that their business is appreciated.

Most often, the housekeeping staff is responsible for carrying out this important public relations function. Some of the services the staff may provide include:

- Supplying complimentary toiletries
- Placing mints on turned-down bed pillows
- Providing complimentary fruit baskets
- Supplying stationery supplies
- Equipping the guest rooms with hair dryers, bathrobes, and coffee machines

In hospitality facilities, housekeeping and maintenance personnel can increase client satisfaction and ensure repeat business by developing techniques that demonstrate attentiveness to guest needs. Some ways to make guests feel especially welcome may include:

- Filling room ice buckets as part of night service
- Placing bookmarks in magazines or books which must be closed or moved
- Responding promptly to requests for extra pillows, towels, or blankets
- Inquiring further as to how the facility can make the guest's stay more pleasant

Public and Private Sector Establishments

Often, in public and private sector establishments, the housekeeping and maintenance staff is required to interact with clients while performing daily duties. Therefore, care must be taken to keep customer interference to a minimum. This practice helps to maintain good client relationships.

Although there are a wide variety of public and private sector establishments, principles for maintaining good client relationships are similar. When cleaning in public areas, it is important for employees to avoid activities that may disturb clients, such as:

- Performing activities in a noisy manner
- Carrying on conversations with coworkers or other clients
- Humming
- Singing
- Whistling
- Interfering with public access to areas or merchandise

Consideration and honesty play an important role in establishing good relations with clients. Housekeeping and maintenance personnel are instructed not to touch items laying or stacked on desks, tables, or floors. By following this instruction, housekeepers avoid the risk of destroying or misplacing important items belonging to clients.

Housekeeping and maintenance personnel demonstrate consideration by respecting guests' privacy. Staff members should not read or make personal use of materials belonging to clients. Maintaining a high degree of trustworthiness results in positive relationships with clients and may increase both job security and advancement opportunities for housekeeping and maintenance employees.

Educational Institutions

Clients in educational institutions include students, teachers, staff, and administrators. To maintain an effective learning environment, a positive relationship must exist between these clients and the housekeeping and maintenance staff. When working around students, it is important to keep a professional distance to avoid interfering with the learning process.

Often, elementary school children idolize adult school personnel. To this age group, the equipment and duties of the maintenance staff are especially attractive. Housekeeping employees in educational institutions should be polite and patient but not overly attentive to the children. For a child who has an accident or becomes ill, the housekeeping and maintenance staff should reassure the child that no one is angry with them and that the cleanup job is routine procedure.

Showing respect for teachers, staff, and their belongings is important in maintaining good relationships. The housekeeping staff should be careful not to disturb papers or projects in classrooms or offices. Many times housekeeping and maintenance personnel are asked to perform additional assignments within a school system. When responding to these requests, employees should demonstrate a courteous and willing manner. Further, school policies should be followed at all times.

◆ *Essential Questions:* ◆ *Industry-Specific Methods of Maintaining Client Relationships*

1. In what ways can individuals employed in health care institutions maintain good client relationships?
2. How can institutional maintenance employees in hospitality services facilities improve client relationships?
3. How can positive client relationships be maintained in public and private sector establishments?
4. In what ways can housekeepers maintain client relationships in educational institutions?

HANDLING SPECIAL SITUATIONS

Occasionally, housekeeping and maintenance personnel are confronted with unusual circumstances when performing their assigned duties. Though these situations are uncommon, housekeeping employees should be prepared to handle them in a safe, efficient manner that will promote positive client relationships.

Special situations occur more frequently in hospitality facilities. However, it is important for housekeeping employees in all fields to be prepared to handle uncommon occurrences. When handling special situations, employees should always follow policies of the workplace. Special situations encountered by the housekeeping staff may include embarrassing situations, clients who are ill or injured, clients behaving in an obnoxious manner, and individuals trespassing on private property.

Embarrassing Situations

Upon knocking and getting no response, a member of the housekeeping and maintenance staff may enter a room and unexpectedly discover a guest in residence. This may prove embarrassing and inconvenient to both the employee and the guest. In this situation, it is most appropriate for the employee to apologize for the intrusion and then leave immediately. Most often, this type of situation occurs with clients who were caught sleeping or showering.

Sometimes, embarrassed clients will complain to the housekeeping supervisor regarding the invasion of privacy. In order to avoid conflict, housekeeping employees should follow company policies regarding entering and exiting cleaning areas. This topic will be discussed further in Chapter 16.

Illness and Injury

When discovering an ill client, the housekeeping and maintenance employee should use a telephone to call for medical help, management, or security. The employee should cover the client with a blanket and offer to stay until help arrives.

In case of injury, caution should be taken when applying first aid. Procedures should be administered only when a client is in danger of either obtaining further injury or bleeding to death. Company policies and procedures should always be followed in situations involving illness and injury.

Obnoxious Behavior

Occasionally, a housekeeping employee may encounter an obnoxious client. ***Obnoxious behavior*** includes actions that are considered unpleasant, objectionable, or offensive to another party. Examples of obnoxious behavior include propositioning individuals to engage in drinking or drugs or in sexual activity. Also obnoxious are offensive comments made to or about the housekeeping employee or other individuals who may be in the vicinity.

Drinking excessive amounts of alcohol or engaging in drug use can result in obnoxious behavior. When approached by an obnoxious client, the housekeeper should remain calm and avoid arguing. Sometimes, clients or customers who are displaying obnoxious behavior can become irrational and aggressive. In these types of situations, it is safest for the housekeeper to leave the room or area immediately and notify both security and management.

Unauthorized Individuals

Sometimes, housekeeping and maintenance personnel may encounter vagrants or other unauthorized individuals that enter the establishment. The presence of unauthorized individuals tends to create an image problem for businesses. Housekeepers should be familiar with and follow policies of the workplace and state laws regarding trespassing.

In this situation, employees should calmly and politely request that the individuals leave the building or grounds. Further, the employee may explain that upon reentry onto the premises, the individual may be charged with trespassing. As in all situations, however, it is safest for members of the housekeeping and maintenance staff to notify security and management prior to taking any action.

PRIVATE
AREA
DO NOT
ENTER

◆ *Essential Questions:* ◆
Handling Special Situations

1. With what types of unusual circumstances are housekeepers sometimes confronted?
2. What are some ways of handling special situations?

MANAGING CLIENT COMPLAINTS

Most often, complaints from clients are handled either in person or over the telephone. Using a pleasant voice is easy when a client is courteous. However, when dealing with an upset or angry client, an employee must handle the situation carefully.

It is important for employees to follow the rules set by the establishment for dealing with customer complaints. Additionally, it is important for employees to maintain a positive and pleasant manner to help calm the situation. Showing empathy to the client will also help. ***Empathy*** is the ability to think and act with understanding of how others feel. Empathy can be shown by what is said and in how the message is presented. When dealing with complaints, observe the following suggestions for solving the problem and satisfying the client:

- Remember that the client is not personally attacking you. Avoid being defensive.
- Remain relaxed and courteous. Do not let the client upset you.
- Avoid telling the client to "calm down." This statement tends to worsen situations.
- Listen intently to the problem.
- Avoid interrupting while the customer is explaining the situation.
- Show concern by the way you speak and by your choice of words.
- Assure the client that the establishment desires to solve the problem and suggest possible alternatives. At some point, it may be necessary to involve management.

Remember that without clients, a business would not exist. All employees are responsible for helping to create and maintain good client relationships. Although handling complaints is not an easy job, it can offer opportunities to show customers that the establishment cares about them and appreciates their business.

◆ Essential Questions: ◆ Managing Client Complaints

1. How should an employee react to client complaints?
2. What guidelines should be followed when attempting to solve a problem and satisfy a client?

Chapter Highlights

- A positive attitude helps an individual achieve goals more easily, reduces stress, assists an employee in carrying out job responsibilities effectively, and encourages client satisfaction.

- Various personality traits combine to create an image that is perceived by others as a certain type of personality. Personality traits can be evaluated and those needing improvement can be changed. A pleasant personality is important since clients enjoy being served by employees who appear to enjoy their work.

- Character traits needed for maintaining good client relationships include friendliness, cheerfulness, a sense of humor, courtesy, and tact.

- Communicating clearly with clients (in person, in writing, and on the telephone) and understanding their needs help attract and retain clients and create a positive image for an establishment.

- Employees in health care institutions should be accepting of clients' needs, avoid annoying behaviors, listen sympathetically, and remain calm in difficult situations in order to maintain good client relationships.

- In hospitality facilities, institutional maintenance employees play an important role in maintaining good client relationships by developing techniques which show clients that personnel are attentive to their needs.

- Housekeepers employed in public and private sector establishments often interact with clients while performing housekeeping duties. Therefore, duties must be performed with minimal interference to avoid disturbing clients.

- It is important for the institutional maintenance staff employed in educational institutions to show respect for teachers, staff, students, and their belongings and to maintain a learning environment.

- Occasionally, housekeepers are confronted with unusual circumstances involving embarrassing situations, illness and injury, obnoxious behavior, or unauthorized individuals.

- When handling complaints, employees should follow the rules of the establishment, maintain a positive and pleasant composure, show empathy, listen intently, use a sympathetic tone of voice, and remain relaxed and courteous.

Chapter 6

Communication Skills

Chapter Focus

The following Essential Knowledge and Skills are discussed in this chapter:

3B Describe how societal and cultural patterns influence communication.

10A Demonstrate effective verbal, nonverbal, written, and electronic communication skills.

10B Demonstrate effective methods to secure, maintain, and terminate employment.

10C Demonstrate positive interpersonal skills including conflict resolution, negotiation, teamwork, and leadership.

10E Demonstrate appropriate grooming and appearance for the workplace.

10F Demonstrate appropriate business and personal etiquette in the workplace.

10G Exhibit productive work habits and attitudes.

Chapter Vocabulary

active listening
automated equipment
bad news letter
block form letter
body language
computers
conflict
desktop publishing
e-mail
feedback
I-messages
memorandums
modified block form letter
Netiquette
neutral information letter
nonverbal communication
one-way communication
passive listening
prejudice
report
request letter
templates
two-way communication
verbal communication
word processing
you-messages

The ability to communicate ideas and understand others is a basic factor in developing and sustaining human relationships. Communication has been defined as the process by which ideas, feelings, and information are shared. It requires skills in both verbal and nonverbal communication and in writing. In order for communication to occur, a message must be sent and received. Therefore, the sender and receiver are both vital parts of the communication process.

Through communication, people share ideas, receive information, give or receive advice, relate feelings, and show interest in others. The flow of communication between sender and receiver is influenced by various factors including:

- Attitude
- Personality
- Perception
- Ideas
- Sensitivity
- Cultural background
- Communication skills

Communication occurs constantly between people in either a verbal or nonverbal form. ***Verbal communication*** is delivered through words, tone of voice, and the pitch or loudness of voice. An individual's facial expressions, appearance, and bodily gestures are types of ***nonverbal communication***. Clearly, each time one speaks or acts, messages are sent to others. In order for communication to be effective, these messages must be clear and sent in a way that the receiver will understand. Individuals succeed in communicating only when messages are received and interpreted correctly.

It is important for employees to possess good communication skills. Working with supervisors and coworkers, assisting clients, and supervising and training employees all require good communication skills. Additionally, these skills help individuals work as team members, accept constructive criticism, and resolve conflicts.

VERBAL COMMUNICATION

Speaking

It is important to master communication skills in order to send clear messages to listeners. The following guidelines will enhance communication with others. When speaking:

- use correct, standard English rather than slang or casual expressions others may not understand. Use correct grammar and develop a broad vocabulary.
- look directly at the listener and establish eye contact. Eye contact shows the listener that the speaker is interested in talking to her or him.
- speak clearly and distinctly. Avoid running words together, mumbling, talking too fast, and speaking away from the listener.
- use a courteous and friendly tone of voice. Be tolerant of other points of view and avoid complaining and arguing.
- avoid monopolizing a conversation by telling every detail of a story.

Public Speaking

Many employment situations offer opportunities for public speaking. For example, employees may be asked to participate in employee orientation meetings, assist in training and development programs, present job-related topics at a staff meeting, or speak at a union or professional meeting. In order to present speeches effectively, individuals must familiarize themselves with the topic of the speech and then prepare for the presentation.

Preparations for presenting a speech should be done well in advance of the scheduled meeting. Procrastinating or waiting until the last minute to prepare generally results in a presentation that lacks professionalism. A speech should contain relevant information, be organized, and flow well. To ensure this, the presenter should take care to allow an appropriate amount of time for researching the topic, preparing the speech, and practicing the presentation.

When preparing for a speech, the presenter should first outline the main points of the topic. In most cases, it is recommended that the topic be outlined in four main points or less. Once the main points are identified, they should be organized in a logical order. Figure 6.1 illustrates some general guidelines to follow when presenting a speech.

Many individuals fear speaking to groups. To help overcome this fear, individuals should remember that a speech is merely a message being given to a group. Techniques for presenting effective speeches include the following:

- Practice! Practice! Practice! Practice builds confidence. Overcome fear by practicing several times before presenting the speech.
- Avoid reading directly from note cards. Speak to the audience rather than read to them.
- Use examples to make the speech interesting.
- Keep the speech brief and to the point.
- Make eye contact with the audience and speak clearly with enthusiasm and confidence.
- Smile. However, do not force a smile – nervousness can make a forced smile appear false. As the speech progresses, the speaker will relax and a smile will appear naturally.
- Maintain a professional appearance by dressing appropriately for the group being addressed.

Guidelines for Professional Presentations

1. Tell the audience what you are going to tell them.
- Begin with information that will catch the audience's attention, such as a personal experience or a humorous story related to the topic.
- Tell the audience what the speech will be about.

2. State the main points of the speech.
- Most facts and details can be placed in three or four main groupings. By using a small number of points, people are likely to remember them better.
- Be sure to list and mention the three or four main points before explaining them. This gives the audience a "map" of where they are going.

3. Explain each main point of the speech.
- Begin with the first main point. Proceed by covering each point in the correct order.
- Share information and stories to add interest and clarity.

4. Tell the audience what you told them.
- Close the speech by summarizing the main points presented. Restating the main points increases the listeners' retention.

Figure 6.1

- End early. Know the amount of time allotted for the speech and plan to end five minutes early. As a courtesy to the audience or to a speaker who may follow, cover all main points and give concluding remarks within the time limit.

Listening

A communication skill that is often overlooked is that of listening. Messages must be sent and received in order for communication to occur. Therefore, communication fails when a person does not listen to the message sent. The ability to receive a message is as important as sending a message.

Listening is not the same as hearing. Both hearing and listening use the ear, but listening involves understanding what is heard. Listening involves using the brain as well as the ear. To really listen, one must think about what is being said. Reasons for not listening include the following:

- Distractions or interruptions, such as noises from outside.
- Thinking about something else while the speaker is talking.
- Disagreeing with what the speaker is saying and planning a response.
- Assuming to know what the speaker will say next.
- Difficulty with hearing the speaker.
- Misunderstanding the speaker's words.
- Distractions caused by the speaker, such as mannerisms, tone of voice, or word pronunciation.

Skilled listeners use two methods when listening – passive listening and active listening. In ***passive listening***, individuals refrain from actively engaging in the conversation, using brief prompts to encourage the speaker to share ideas and feelings. For example, when individuals use passive listening they may reply to what is being said with such phrases as "I see" or "really."

Active listening requires a more active role, in which the listener checks understanding of what the speaker is actually saying. In active listening, the listener repeats what the speaker says to make sure the content of the message is clearly understood. It is important for active listeners to rephrase or put into their own words what the speaker has said. Otherwise it may sound as though the listener is "parroting" the speaker. Also, the listener should avoid giving advice unless that is the purpose of the conversation. In an example of active listening, a speaker may say, "I enjoy my job here." The active listener may reply, "I understand that you like working as a housekeeper in this hospital."

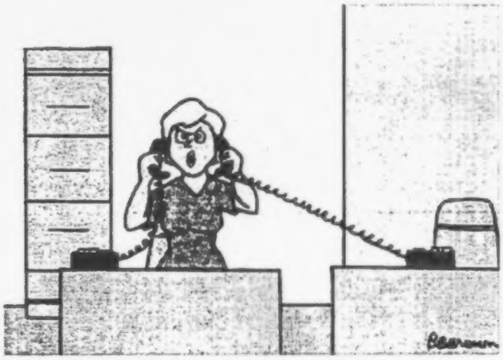
Listening can be improved with practice. In order to become good listeners, individuals must practice listening skills, such as:

- Concentrate on what is being said.
- Ignore distractions.
- Establish eye contact with the speaker.
- Do not interrupt the speaker.
- Ask questions or ask the speaker to explain the point in more detail.
- Listen to the entire message rather than selected parts.
- Keep an open mind to new ideas.
- Listen for feelings that are not verbally expressed by the speaker, such as happiness, sadness, anger, or frustration.

Feedback

Feedback is important to good communication. ***Feedback*** is the response that shows whether the listener understands the message. The listener may use feedback to clarify, restate, or summarize the sender's message. Examples of feedback include active listening, asking questions, and expressing feelings about a matter.

Feedback can be either verbal and nonverbal. An example of verbal feedback is repeating what the person has said in order to clarify meaning, " I understand that you want me to work next Friday and take Saturday off." Forms of nonverbal feedback are nodding or shaking one's head, smiling or frowning, and making eye contact with or looking away from the speaker.



"Wait! Don't you both talk at once!"

Two-way communication occurs when both the speaker and the listener provide feedback. This form of communication provides the greatest amount of understanding between people. Misunderstanding often occurs in one-way communication. ***One-way communication*** occurs when the person receiving information cannot obtain feedback. Examples of one-way communication in the workplace include training videos, instructional manuals, and lectures. These forms of one-way communication provide important information to employees, but they do not always allow opportunity for feedback. For example, individuals cannot question the instructor of a training video or the author of a manual. Here, employees must use their own judgement to interpret the information or contact management for clarification.

◆ Essential Questions: ◆ Verbal Communication

1. What factors influence the flow of communication?
2. What guidelines will enhance communication with others when speaking?
3. What techniques can be used for presenting a professional speech?
4. What circumstances make it difficult to listen?
5. How can individuals improve their listening skills?
6. Why is feedback an important aspect of communication?

NONVERBAL COMMUNICATION

Body Language

Individuals communicate many messages through their posture, gestures, eye movements, and facial expressions. This type of communication is known as ***body language***. Every movement a person makes is received and interpreted by others. Researchers have estimated that body language makes up 55 percent of the messages a person sends. Body language, or nonverbal communication, is considered more powerful than verbal communication.

A person's body language often reveals the feelings behind a message more clearly than the words that are spoken. Therefore, the ability to read body language helps a person become a better communicator. Some examples of body language and the meanings typical in U.S. culture are found in Figure 6.2.

Types and Meanings of Body Language

Folded arms – defensiveness
Raised eyebrow – doubt
Slumped shoulders – fatigue
Face-to-face contact — desire to communicate
Shrug shoulders – do not know or do not care
Hugging/embracing – caring
Pats on back – appreciation for a job well done
Pushing someone away – wanting space from that person
Smiling – universal sign for happiness
Eye contact – interest in communicating
Rolling eyes upwards — disbelief

Figure 6.2

In order for communication to be clear, body language must be congruent (agree) with the spoken message. The more congruent a person's body language and spoken message are, the better the listener is able to interpret what the speaker means. For example, an individual sitting slumped in a chair and using a monotone voice to tell an exciting story sends a mixed message to the listener. The listener senses a message of excitement but receives a message of fatigue or boredom. This causes the listener to become confused because it is unclear whether the speaker is genuinely excited or actually bored and pretending to be excited. In order to communicate this message clearly, the speaker should use body language that sends the same nonverbal message as the spoken message.

Actions

A person's actions can send nonverbal messages also. In the workplace, employees who consistently arrive late for work demonstrate through their actions that they have little regard for their job, their supervisors, or their coworkers. On the other hand, employees who arrive for work a few minutes early and are prepared to promptly begin their shift demonstrate respect for themselves, their supervisors, and their coworkers. Additionally, they show appreciation for their job. Employees who show a caring for their work through their actions are likely to be promoted. It is true - actions DO speak louder than words.

Appearance

Another form of body language, or nonverbal communication, is personal appearance. Personal appearance refers to how an individual looks. First impressions are formed by an individual's appearance so a good personal appearance is an important factor in achieving job success. People who have a messy appearance are often perceived as being insensitive and uncaring. Those who are neat and well-groomed are considered to be intelligent, efficient, and professional. People who take care of themselves are the types of people others enjoy being around. When hiring, employers look for individuals who are clean, neatly dressed, and demonstrate a pride in their appearance.

All employees benefit from having a good appearance. It is especially important for employees who have public contact to present a fashionable and neat appearance. Individuals employed in the field of institutional maintenance often perform their duties in public areas. Since employees serve as representatives for the institutions in which they work, it is important that they make good impressions on the individuals with whom they come into contact.

Cross-Cultural Communication

Every culture has its own ways of communicating thoughts and feelings. For instance, in the United States making eye contact while speaking or listening to another is considered good manners. However, in some Middle Eastern countries, a woman is not permitted to look directly into the eyes of a man unless he is her husband. Such differences can make communication between cultures awkward and can lead to misunderstandings.

Being aware of cultural differences and adapting one's body gestures, movements, and even personal space show consideration for other cultures. Employees in institutional maintenance and housekeeping services may find employment where they are in daily contact with clients and customers from various cultures. For instance, employees working in hotels, spas, resorts, on cruise ships, and in entertainment facilities may deal with people from all over the world.

It is important to learn as much as possible about the different cultures with which the employee may come into contact. Most people enjoy talking about their culture, so reading a lot of books on the subject is not necessary. When an opportunity arises in which to learn about others, take the time to show a genuine interest by asking questions and sharing experiences.

◆ Essential Questions: ◆ Nonverbal Communication

1. What are some examples of types and meanings of body language?
2. How is personal appearance a form of nonverbal communication?
3. Why should individuals be aware of cultural differences when communicating?

WRITTEN COMMUNICATION

Written communication skills are important job skills needed by employees. Employers consider these skills to be important because business and money can be lost when employees fail to write messages clearly and accurately. Effective written communication skills are also important to employees. Many advanced positions require employees to use written communication skills to maintain accurate records and prepare business letters, memorandums, and reports.

Business Letters

Business letters differ from personal letters. A letter written to a friend or family member may be informal – written by hand on decorative stationery. However, business letters are more formal. In business, standard formats are used in written correspondence to demonstrate professional conduct. Customers and clients often judge a company upon the written work received. Therefore, the image of the company can be reflected by the quality of the business letter. Types of business letters include request letters; neutral information letters, or good news letters; and bad news letters.

A ***request letter*** is written to ask something of the reader, such as information, merchandise, or service. A ***neutral information letter*** or good news letter is usually written to grant requests or favors, make announcements, express gratitude, or provide information regarding policies and procedures. The purpose of a ***bad news letter*** is to provide unfavorable news, such as a denied request or an announcement regarding price increases. Guidelines for writing different types of business letters are presented in Table 6.1.

Since business letters represent and create an image for a business, it is important that letters appear neat and be free from spelling and grammatical errors. In addition, business letters should be typed in a standard form. Two standard forms of business letters are the block form and the modified block form. In the ***block form***, all parts of the letter begin at the left margin, and there are no paragraph indentions. In the ***modified block form***, all parts of the letter begin at the left margin except for the return address, date, complimentary closure, typed name, and signature. Figure 6.3 illustrates a request letter written in block form while Figure 6.4 illustrates a neutral information letter written in modified block form.

Request Letter

- Present the request and explain the reason for making the request.
- Include information necessary for the reader to react to the request appropriately. Necessary information includes the title of the information requested, the name of the merchandise desired, the quantity desired, and the price of the merchandise or service.
- Describe the action the reader is to take and set a reasonable deadline.
- Thank the reader for responding.

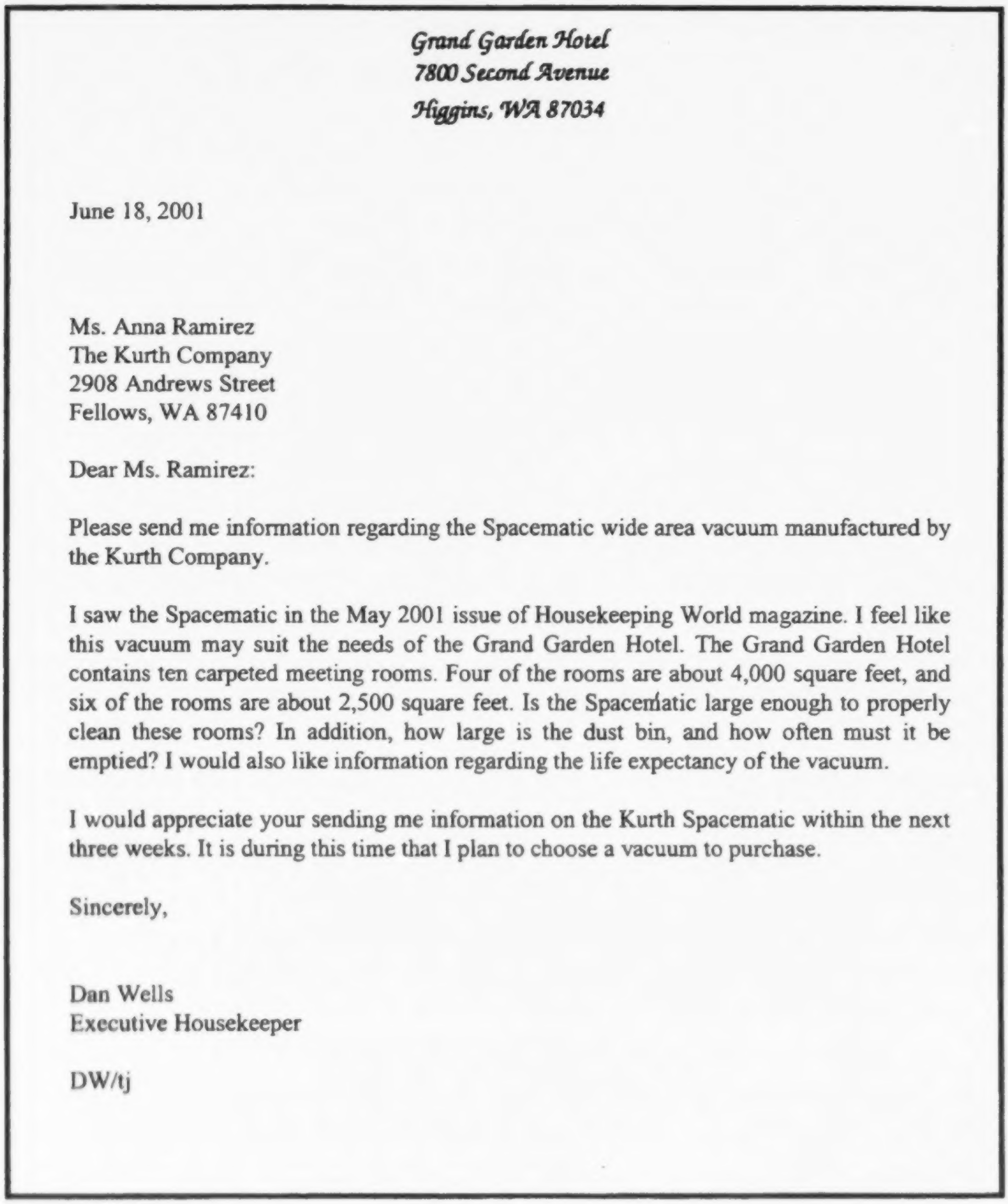
Neutral Information Letter/Good News Letter

- Present the good news or main point of the letter.
- Provide facts or information that further explains the main point of the letter.
- Close the letter with a friendly, positive statement. For example, let the reader know you are willing to provide further assistance.

Bad News Letter

- Begin the letter with a positive statement related to the bad news.
- Explain the reason for bad news, such as why a request is denied.
- Offer a worthwhile suggestion or an alternative to the reader.
- Close the letter with a friendly, positive statement.

Table 6.1



Grand Garden Hotel
7800 Second Avenue
Higgins, WA 87034

June 18, 2001

Ms. Anna Ramirez
The Kurth Company
2908 Andrews Street
Fellows, WA 87410

Dear Ms. Ramirez:

Please send me information regarding the Spacematic wide area vacuum manufactured by the Kurth Company.

I saw the Spacematic in the May 2001 issue of Housekeeping World magazine. I feel like this vacuum may suit the needs of the Grand Garden Hotel. The Grand Garden Hotel contains ten carpeted meeting rooms. Four of the rooms are about 4,000 square feet, and six of the rooms are about 2,500 square feet. Is the Spacematic large enough to properly clean these rooms? In addition, how large is the dust bin, and how often must it be emptied? I would also like information regarding the life expectancy of the vacuum.

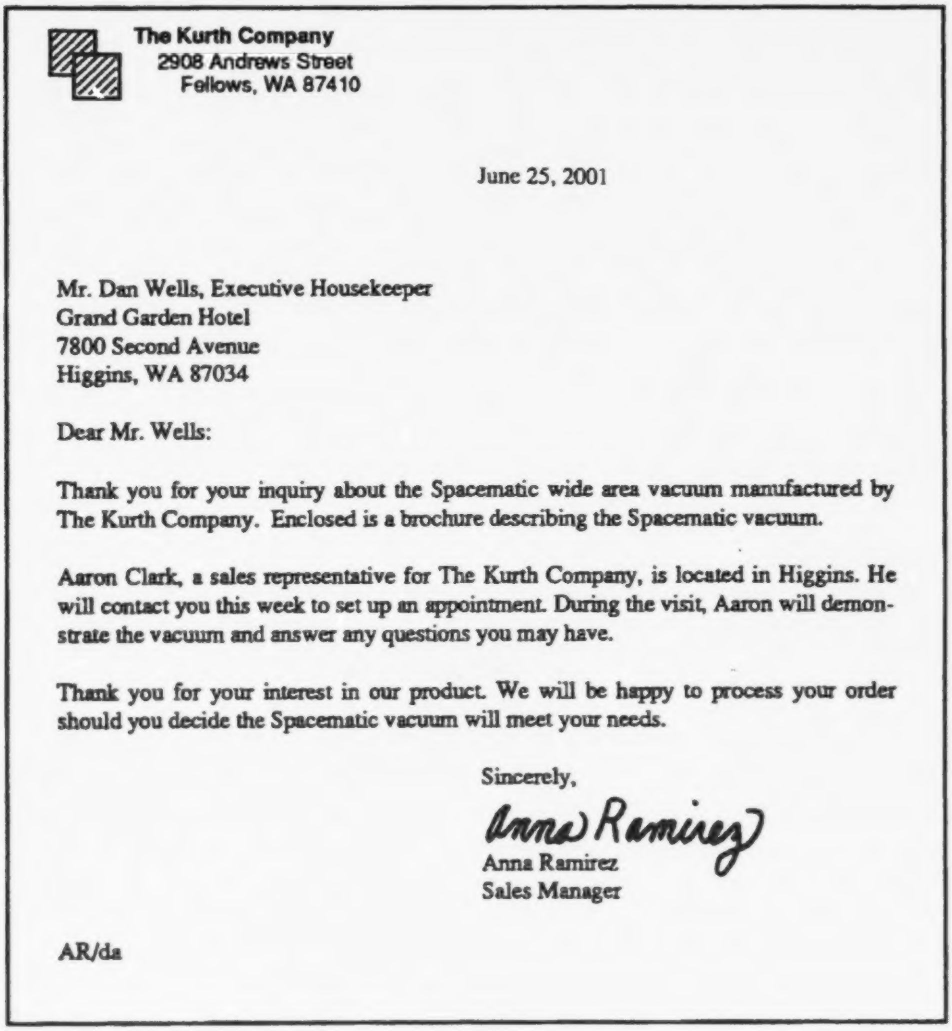
I would appreciate your sending me information on the Kurth Spacematic within the next three weeks. It is during this time that I plan to choose a vacuum to purchase.

Sincerely,

Dan Wells
Executive Housekeeper

DW/tj

Figure 6.3



The Kurth Company
2908 Andrews Street
Fellows, WA 87410

June 25, 2001

Mr. Dan Wells, Executive Housekeeper
Grand Garden Hotel
7800 Second Avenue
Higgins, WA 87034

Dear Mr. Wells:

Thank you for your inquiry about the Spacematic wide area vacuum manufactured by The Kurth Company. Enclosed is a brochure describing the Spacematic vacuum.

Aaron Clark, a sales representative for The Kurth Company, is located in Higgins. He will contact you this week to set up an appointment. During the visit, Aaron will demonstrate the vacuum and answer any questions you may have.

Thank you for your interest in our product. We will be happy to process your order should you decide the Spacematic vacuum will meet your needs.

Sincerely,

Anna Ramirez

Anna Ramirez
Sales Manager

AR/da

Figure 6.4

Memorandums

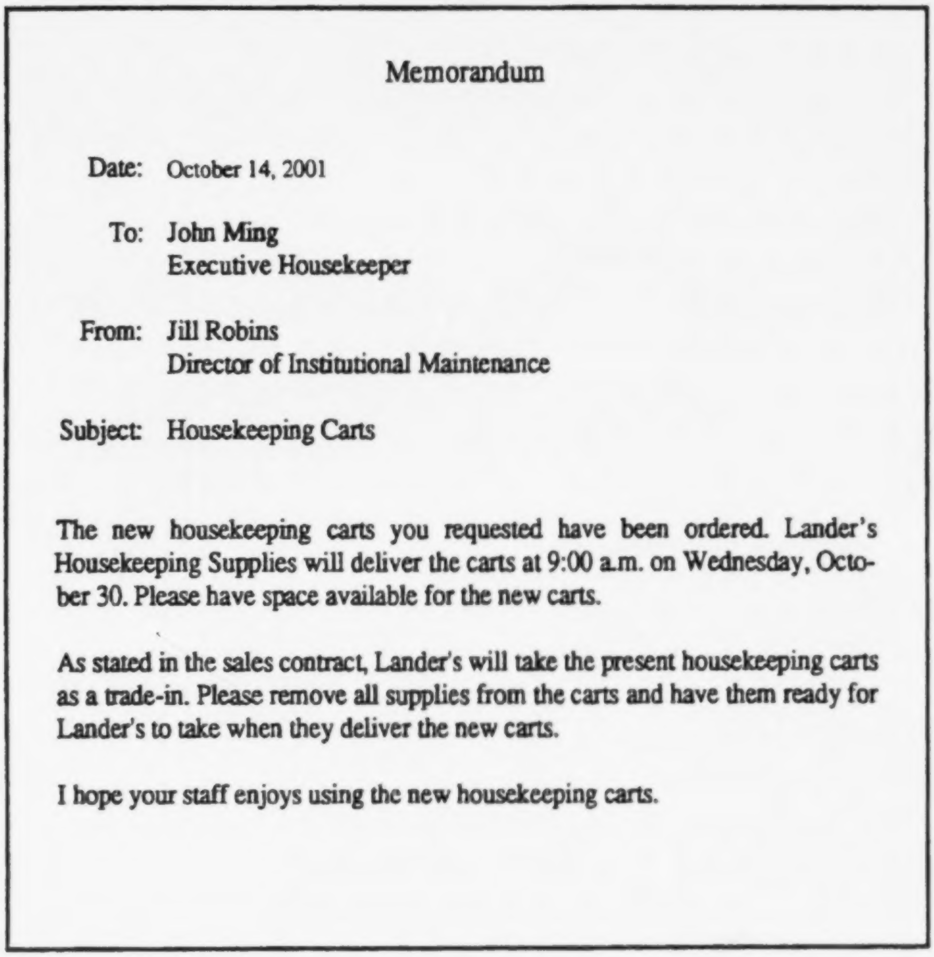
Memorandums, often referred to as memos, are written messages sent to people within the same organization. Memos are usually short, informal messages that discuss one subject. The degree of formality depends upon the policies of the employer and company. An example of a memo is shown in Figure 6.5.

Reports

A ***report*** is a written account that provides information about a situation. Reports are often written to explain work that has been completed, to submit new ideas, or to describe problems. Reports help readers understand business situations, solve business problems, and make business decisions. Therefore, it is important to write clearly and accurately when preparing a report. Guidelines to remember when writing a report include the following:

- Define the purpose of the report.
- Consider the intended reader before writing the report.
- Determine information to include in the report.
- Present facts fairly.
- Use correct grammar.

Reports can be written in either a formal or informal manner. Formal and informal reports are compared in Figure 6.6.



Memorandum

Date: October 14, 2001

To: John Ming
Executive Housekeeper

From: Jill Robins
Director of Institutional Maintenance

Subject: Housekeeping Carts

The new housekeeping carts you requested have been ordered. Lander's Housekeeping Supplies will deliver the carts at 9:00 a.m. on Wednesday, October 30. Please have space available for the new carts.

As stated in the sales contract, Lander's will take the present housekeeping carts as a trade-in. Please remove all supplies from the carts and have them ready for Lander's to take when they deliver the new carts.

I hope your staff enjoys using the new housekeeping carts.

Figure 6.5

Formal Business Reports	**Informal Business Reports**
Long in length	Short in length
Graphics	No graphics
Title page	No title page
Cover page	No cover page
Table of contents	No table of contents
Introduction, body, summary	Body only
Bibliography	No bibliography

Figure 6.6

◆ *Essential Questions:* ◆
Written Communication

1. What are the differences between a letter, a memorandum, and a report?
2. Why is it important for managers and supervisors to have good written communication skills?

ELECTRONIC MEDIA

Electronic media includes TVs, VCRs, CD players, DVDs (digital video disks), phone systems, and computers. In today's world, most people use electronic media both at home and in the workplace. In many businesses, electronic media plays an important role. TVs and VCRs or DVDs can be used to show employee-training tapes or CDs. Some companies utilize CDs for storing data as

CDs have greater storage capacity than do tapes. Phone systems and computers make it possible to send and receive messages across the Internet. This service is termed e-mail. Additionally, managers and supervisors can hold conference calls with other business people around the globe through the use of conference calling features.

Computers

Businesses have been greatly impacted by electronic media. Thus, more and more jobs are requiring employees to have computer skills and to be computer literate. ***Computers*** are electronic devices that store and process information. In communications, computers are most useful in word processing and desktop publishing.

Word processing is typing words on a keyboard, viewing and rearranging them on the screen, and printing a hard copy or printout. With a word processing program, employees are able to perform the following functions:

- Type in words, rearrange them, and check spelling with a spell-check tool function.
- Use programs designed to analyze writing for content, style, and grammar.
- Format the page by selecting the shape, size, and arrangement of the words.
- Create mailing lists.

For writing business letters, programs are available that offer templates of standard form letters. ***Templates*** are guides that enable the user to type in the date, return address, salutations, and body of the letter without concern for spacing and indentations. The mechanics of the letter are performed automatically by the computer program.

Desktop publishing includes software that enables the user to create brochures, newsletters, pamphlets, and books. With a desktop publisher, businesses can incorporate pictures into their advertising materials. Employees skilled in using desktop publishing software can produce manuals, memos, and charts that look very professional.

e-Mail. The Internet has allowed computer users to send and receive messages almost instantly with ***e-mail***, or electronic mail. Sending messages over phone lines or through fiber optic cables is much faster than sending letters through the postal service. Individuals set up e-mail accounts so that they can enjoy daily communication with friends and family members who live out of state; for many, this saves on long-distance phone charges.

Many businesses have e-mail accounts to enable them to expedite services. Customers, clients, and the general public can access these accounts to offer suggestions or make inquiries. Employees who access and use business e-mail accounts must remember to use professional standards when contacting customers and clients. As with regular written correspondence, e-mail messages convey the company's image to the public.

To help e-mail users with proper business e-mail netiquette, there are numerous web sites and books available. ***Netiquette*** is the term used to describe the good manners an individual uses when sending and receiving messages over the Internet. Some sites offer Netiquette advice for personal communication while others specialize in company-to-company e-mail Netiquette. Table 6.2 provides a list of general Netiquette rules that businesses should follow when using e-mail.

Business e-Mail Netiquette

- Have and show consideration for the party receiving the communication. Read the message and think of how the e-mail message is likely to be received before sending. It is important to prevent misunderstandings and not give offense.
- Business communication requires a certain amount of formality. Keep the message from coming across as too personal. Because e-mail tends to be more immediate and personable, there can be a tendency to relax business styles.
- When originating e-mail be certain to let the receiving person know where the e-mail address was obtained, always put something in the Subject box, and do not send attachments until the correspondent has indicated that attachments will be accepted.
- Recipients do not like lengthy e-mails, so keep the message short.
- Make it clear that the message is from the company – not a personal correspondence.
- Create a signature for consistency. Keep this short and concise.
- Include the business e-mail in the signature line in case the signature gets separated from the header.
- Use proper punctuation, spelling, and grammar. If necessary, write the message in a word processing program and use the spell and grammar checks before sending. After composing and checking the message, use the cut and paste tools to place the message into the message box.
- For initial contacts, write formally; use titles such as Mr., Ms., or Mrs.
- When replying to a contact, use the correspondent's signature as a guide to how they prefer to be addressed. This could be their given name or a formal title.
- Do not use "smileys," i.e. [:-) ;-) :-o. The meaning of the words should be contained in the words themselves and should not need additional explanation with funny faces.
- Do not use all capital letters. This is equivalent to shouting and is considered rude and unprofessional.

Table 6.2

Telephones

Technology has changed the way telephones are used today. Changes in telephone usage are attributed to cordless phones, car phones, answering machines, voice mail, beepers, and other forms of telephone technology.

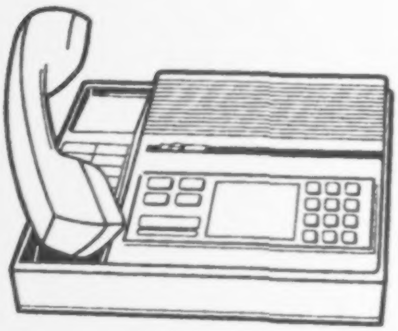
In the workplace, it is important to be familiar with the various types of telephone features. Not knowing how to use the telephone correctly can result in lost profits for a business. One example of this is when an employee attempts to forward a call and inadvertently loses the customer's line. Some customers will call back, but not all do.

Ultimately, it is the supervisor's responsibility to train new employees whose job description includes answering the business phone. However, job seekers who have these communication skills already in place will be one step ahead of other job applicants.

Examples of telephone technology are listed below. This listing is only a small sampling of the many features available. As technology continues to advance, more services ultimately will be offered through the telephone.

- Voice Mail Messaging – this service answers calls when the phone line is busy or when no one is available to answer. Callers do not get a busy signal, and by dialing an authorized access number the receiver can retrieve messages at anytime.

- Call Waiting - this feature allows important calls to get through when the phone line is busy.
- Call Forwarding - this service allows calls to be transferred from one number to another.
- Speed Dialing - often-called numbers can be programmed directly into the telephone. This feature allows direct calling without having to access and dial the number. A similar feature, automatic redial, will access the last number dialed.
- Conference Calling - allows several people to share one phone line. With this service, businesses can save money on travel expenses.
- Consultation Hold - using a multi-line phone, this feature allows calls to be placed "on hold" while the user calls another party to consult privately. After the consultation, the caller can return to the original call.



Advances in telephone technology also ensure that people with disabilities have access to gainful employment. The Americans with Disabilities Act (ADA) signed by President George Bush in 1990 was passed to protect people from being denied employment due to a physical or mental disability. In accordance with this bill, businesses seek ways to ensure that their telephone systems are designed to meet the communication needs for as many people as possible. Some of the features available for differing types of disabilities include:

- Microphone amplification
- Adjustable ringer pitch and volume
- Hands-free operation
- Hearing aid compatibility
- Visual ringing signal

◆

Essential Questions: Electronic Media

1. What are some types of electronic media?
2. How have computers impacted the business world?
3. Why is netiquette use important?
4. What are some rules for business e-mail Netiquette?
5. What are some features available for business telephones?
6. How has the Americans with Disabities Act affected business telephone systems?

LEVELS OF COMMUNICATION

Communication occurs on five distinct levels. Each level represents a different degree to which individuals reveal themselves to others. When people meet, they usually communicate at a low level. They use such phrases as "How are you?" As people become better acquainted, they advance to higher levels of communication where they begin to expose more of their feelings and emotions. The five levels of communication are described in Figure 6.7.

Levels of Communication

Level 5

This level is often referred to as the cliché level since there is no sharing of emotion, and conversation is often based on common expressions. This is the weakest level of communication. Example: "Hello. How are you today?" "I am fine."

Level 4

This level involves only a reporting of events or facts. No opinions or feelings are expressed.
Example: "I heard Jenny and Roland both made A's on the math exam."

Level 3

This level includes some sharing of ideas. The speaker watches for acceptance or rejection of ideas before continuing the conversation.
Example: "I think we should stock the housekeeping carts in the afternoon rather than in the morning."

Level 2

At this level, there is an honest sharing of feelings and emotions.
Example: "I am afraid I may not be able to remember how to perform the duties required for my job."

Level 1

Complete openness and honesty, referred to as peak communication, exist at this level. Deepest thoughts and feelings are revealed, and reactions and emotions are shared by the speaker and listener.
Example: "Is there anything I can do to make you feel more confident?"

Figure 6.7

◆ *Essential Questions:* ◆ *Levels of Communication*

1. How does each of the five levels of communication represent how individuals reveal themselves to others?
2. How does knowledge of the five different levels aid institutional maintenance employees in their communication skills?

CONFLICT RESOLUTION

Differences among people may cause conflicts in the workplace. A ***conflict*** is a disagreement. People's needs, behaviors, goals, values, and roles are often sources of conflict. Also, conflicts can occur when individuals interfere with the actions of others. Conflict is usually thought of as being negative. However, it is the failure to deal with conflict in a productive manner that causes negative results. When good communication skills are used to handle conflict, there can be positive results. Conflict can lead to a greater respect for others when individuals listen to the opinions of others and try to understand them.

Examples of workplace situations that can cause conflict between coworkers include interacting with people from cultural backgrounds different from their own, accepting new employees, introducing new technology into the workplace, and disagreements with management. These situations are discussed in the following paragraphs.

People from Different Cultural Backgrounds

When individuals accept employment, they will likely work with people from varying cultural backgrounds. Often, people from different cultures will have different value systems and varied work experiences. Judgements that are based on prejudiced information may be made toward individuals from different cultures. ***Prejudice*** is an opinion, usually unfavorable, that is formed about others before all the facts are known.

In order to better understand a person from a different background and avoid misunderstandings, individuals should use communication skills to learn about the person's expectations, attitudes, and experiences. This communication can lead to better understanding between individuals, result in the removal of barriers in relationships, and allow people to work together more productively.

New Employees

The addition of new employees often results in conflict among coworkers. Experienced employees may fear that new employees will take their jobs or create problems. In addition, it is difficult for some individuals to accept change. Therefore, new employees may not receive a friendly welcome. A new employee can initiate positive work relationships by showing a sincere interest in each staff member. For new employees, asking established employees for information or assistance can lead to improved communications.

Technology Introduced into the Workplace

The advancement of technology has resulted in many companies installing automated equipment and computers in the workplace. ***Automated equipment*** is self-operating machinery that automatically controls or performs some or all processes of production. Automated equipment and computers may create conflict in the workplace because employees fear they will be replaced by machinery. In addition, some employees are discouraged at the thought of learning to operate computers or computerized machinery. To avoid conflict, an employer can explain new equipment to employees, provide thorough training, and express a desire to answer questions. Employees can communicate with the employer by asking questions and expressing their fears.

Disagreements with Management

Employees sometimes disagree with supervisors about assignments, work procedures, or policies. When disagreements arise, the employee should communicate questions, problems, or disagreements to management. Before confronting management with a complaint or problem, however, employees should make an effort to understand the reasons behind management instructions and develop a suggestion for solving the problem. Offering suggestions shows initiative on the part of the employee and may help the employee's position.

I-messages Vs You-messages

When communicating with individuals in situations involving conflict, it is important to use I-messages rather than you-messages. ***You-messages*** are statements that blame or criticize the listener. Words such as "always," "never," and "you" are often heard in you-messages. You-messages may make listeners feel threatened and cause them to become defensive. In this way, conflict resolution is seldom reached because each person becomes more interested in winning the argument than resolving the conflict.

I-messages are statements that reveal how a situation makes the speaker feel. Using I-messages, individuals accept responsibility for their feelings rather than transferring responsibility to the listener. I-messages are important when communicating because the listener does not feel threatened by what is said. In the work environment, I-messages are effective when reporting disagreements with coworkers to supervisors. By using I-messages, employees take responsibility for their part in the conflict and do not assign blame to other people.

To summarize, when using you-messages, the speaker takes on the responsibility of telling the listener what to do. In I-messages, the speaker leaves the responsibility of taking action to the listener. Using I-messages, the speaker trusts the listener to use personal judgement in solving the problem. I-messages and you-messages are compared in Figure 6.8.

◆ Essential Questions: Conflict Resolution ◆

1. What are causes of conflict in the workplace? How can these conflicts be resolved?
2. Why are I-messages a more effective way to communicate than you-messages?

I-messages vs. You-messages

You-message
"You always leave the cap off of the disinfectant. Why can't you ever remember to put it back?"

"I always put on the cap. You always forget to put the mop up to dry."

I-message
"I get frustrated when I find the cap off of the disinfectant. If I knock it over, it will take me a while to clean it up."

"Did I forget to do that again? I'll try to remember next time. We both want to finish our work on time."

You-message
"Your work area is a mess. You must be more organized. How do you expect your co-workers to find supplies in this mess you've made?"

"I did not make this mess. This room is organized just like the other supply rooms. Speaking of mess, have you looked at your office lately?"

I-message
"I am concerned about the organization of this supply room. I would find it difficult to find the supplies I need."

"Yes, I was busy and did not put the supplies in their proper places. I will straighten the room this afternoon."

Figure 6.8

Chapter Highlights

- ☆ Communication is the process by which individuals share ideas, receive information, give or receive advice, relate feelings, and show interest in others.
- ☆ When speaking, an individual is responsible for sending a clear message to the listener by using correct standard English, speaking to the listener, speaking clearly and distinctly, using a courteous and friendly tone of voice, and avoiding monopolizing the conversation.
- ☆ Effective public speaking requires that an individual be familiar with the subject of the speech and prepare for the presentation. When presenting a public speech, an individual should observe the following guidelines: tell the audience what will be covered, state the main points of the speech, explain each main point of the speech, and tell the audience what was covered.
- ☆ It is important to develop written communication skills in order to prepare effective business letters, memorandums, and reports.
- ☆ Listening is an important communication skill because communication fails if a person does not listen to the message sent. Listening involves understanding what is heard and can be in the form of passive listening or active listening.
- ☆ Feedback assures both the listener and the speaker that a message is understood correctly and provides the speaker an opportunity to clear up misunderstood messages.
- ☆ Gestures, facial expressions, and posture are examples of body language. Body language must be congruent with the spoken message in order for communication to be clear.
- ☆ Communication occurs on five levels representing different degrees to which individuals reveal themselves to others.
- ☆ Conflicts occur as a result of differences among people. One technique in resolving conflicts is to use I-messages rather than you-messages.

Chapter 7

Organizations: Goals, Procedures, and Policies

Chapter Focus

The following Essential Knowledge and Skills are discussed in this chapter:

2C Identify fiscal management responsibilities.
10B Demonstrate effective methods to secure, maintain, and terminate employment.
10C Demonstrate positive interpersonal skills including conflict resolution, negotiation, teamwork, and leadership.
10E Demonstrate appropriate grooming and appearance for the workplace.
10F Demonstrate appropriate business and personal etiquette in the workplace.
10G Exhibit productive work habits and attitudes.
12A Summarize the rights and responsibilities of employers and employees.
12B Exhibit ethical practices as defined by the institutional maintenance management and services industry.
12C Analyze legal aspects of the institutional maintenance management and services industry.
13B Exhibit management practices facilitating individuals assuming multiple roles.

Chapter Vocabulary

accountability
benefits
bonus
budget
chain of command
closed shop
company protocol
compensation
employee contributions
ethical behavior
FICA
fiscal year
flextime
goals
grievance
gross pay
incident files
incentive
job performance standards
job sharing
labor union
minimum wage
mission statement
net pay
open shop
organizational charts
overtime
payroll deductions
performance appraisal
policies
premiums
probation period
procedures
procedures manual
resignation
shift
standard operating procedures (SOPs)
straight salary
time clock
wage

Each business has specific goals, procedures, and policies. ***Goals*** are the ends toward which organizations direct their efforts and activities. ***Procedures*** are step-by-step guidelines that help employees perform jobs efficiently and ensure the same results each time. Additionally, procedural guidelines provide standards that enable supervisors to evaluate employee job performance fairly. ***Policies*** are overall plans that state the goals and operating procedures of an organization. These plans ensure the smooth operation of the business.

ORGANIZATIONAL GOALS

Most businesses have underlying or main goals. These written goals are referred to as a company's mission statement. A ***mission statement*** is a broad statement that explains the purpose or direction of the company. All business plans are based on the broad mission statement. More specific goals are identified after the mission statement is written. To help the business achieve the identified goals, company procedures and policies are carefully selected.

Mission statements and company goals may be changed as conditions change or as the business grows. A company's mission statement should be developed by considering the following five elements:

- The company's history
- Current preferences of the management and owners
- Environmental and societal factors
- Available resources
- Competencies and abilities of the company

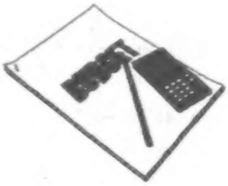
Customer demands for services or products drive company goals and mission statements. Therefore, when developing goals and a mission statement, most successful companies focus on the customer rather than on the goods or services produced.

Operational Budgets

One way businesses set long-range goals is through the development and implementation of an operational budget. A ***budget*** is a financial goal or objective. To be profitable, businesses must project income and expenses for the coming fiscal year. A ***fiscal year*** is the twelve-month block a business uses to plan its finances. A fiscal year may be the same as a calendar year and end on December 31, or it may end at any other time of the year. The most common fiscal year end dates are August 31 or September 30.

The budget is the company's first priority as it outlines the company's financial projection. Items that are detailed in the budget include the following:

- Total sales
- Total salaries and wages
- Total employee costs
- Total controllable costs. Controllable costs refer to supply cost accounts. For example, executive housekeepers will keep cost accounts of cleaning supplies, guest supplies, laundry expenses, linen costs, and general expenses.



Once top management approves the budget and budgetary guidelines, the budget is sent to the general manager who may distribute portions of the budget to department managers. For example, the portion of the budget that covers operating expenses and funds for the engineering/maintenance department is given to the chief engineer. The chief engineer is responsible for operating the engineering/maintenance department within the budgeted amount of funds specified for the department.

A department's manager and staff and the general manager are all responsible for a department's ability to operate within its budget, and if applicable, produce a projected income. The institutional maintenance and housekeeping departments represent a slightly different approach. Like other departments, housekeeping is responsible for meeting the budget by keeping costs to a minimum. However, because these departments do not directly produce income, they do not have an income goal to meet. These departments can still contribute to the income of the business indirectly by using time, supplies, and resources efficiently.

◆ *Essential Questions: Organizational Goals* ◆

1. How do businesses utilize goals, procedures, and policies?
2. What five elements should be considered when writing a company mission statement?
3. What are some factors included in the development of an operational budget?
4. In what ways can institutional maintenance and housekeeping departments contribute toward meeting a company budget?

ORGANIZATIONAL PROCEDURES

Standard Operating Procedures

All businesses establish certain procedures for employees to follow. Some procedures involve tasks that are done on a regular basis while other procedures cover occasional or special circumstances. ***Standard operating procedures (SOPs)*** are written procedures for tasks performed on a regular basis.

SOPs serve as operating guidelines for a business. These guidelines ensure that all employees perform tasks in the same manner each time the task is required. Some of the standard operating procedures may include:

- Daily job performance and routines
- Lost-and-found policies
- Time card procedures
- Inspection checklist processes
- Key control
- Employee performance appraisals
- Inventory control

Standard operating procedures outline responsibilities and duties in the order they are to be done during a shift. Sometimes, the procedures include time schedules for performing tasks. Written standardized procedures ensure efficient business operations. This efficiency is recognized and appreciated by customers and results in a good company image.

Procedures manual. A ***procedures manual*** is a document often provided to employees to help them perform assigned tasks. The manual contains exact directions and instructions as how to perform each step of a particular job. Written in language that can be clearly understood, the procedures manual is listed in logical order and may include photos or illustrations to help clarify instructions.

The new employee should read the procedures manual carefully to learn the procedures that apply to the assigned job. Any information that is unclear should be noted and discussed with management. It is best to ask questions and be informed than to be uninformed and make mistakes on the job.

Instructions for job tasks covered in the procedures manual should not be considered final. These instructions are only as current as when the manual was written. Often, new supplies, updated equipment, and improved techniques are introduced into the work environment. Further, employee suggestions as to better and more efficient ways to perform certain aspects of jobs may be implemented. Other factors that may affect basic business procedures are changes in:

- Administrative policy
- Physical property
- Number of employees

Job Performance Standards

Included in some procedures manuals are job performance standards. ***Job performance standards*** are statements of conditions that exist when a job is performed satisfactorily. These standards are stated in precise terms so they can be measured. Job performance standards should clearly define all aspects on which employees' work will be evaluated.

Usually, performance standards are developed by the company. They are used to describe the results the management staff wants to achieve. Written standards prevent employees from having to guess what type of performance the supervisor expects. Knowing how to perform not only makes the job more enjoyable, it helps the employee prepare for regular performance appraisals by the supervisor.

◆ *Essential Questions:* ◆
Organizational Procedures

1. What are some areas where businesses may use standard operating procedures?
2. In what ways does a procedures manual help employees perform assigned tasks?
3. How do job performance standards help employees in completing assigned tasks?

ORGANIZATIONAL POLICIES

Businesses set organizational policies based on factors such as the:

- Philosophy of the owner or company directors
- Type of business
- Mission statement

Additionally, all organizations have a chain of command or hierarchy. A ***chain of command*** or hierarchy is a structural ranking within an organization. Each department or job position is ranked according to the amount of authority provided to it by the owner or company. ***Organizational charts*** illustrate the chain of command for a company. Figure 7.1 provides an example of an organizational chart for a housekeeping department.

These charts help employees understand the functioning of the organization by showing how the different departments are related to one other. They illustrate lines of authority and the proper channels that should be followed for transferring information, initiating complaints, and submitting reports. In addition, organizational charts allow employees to understand the possibilities of advancement within the company.

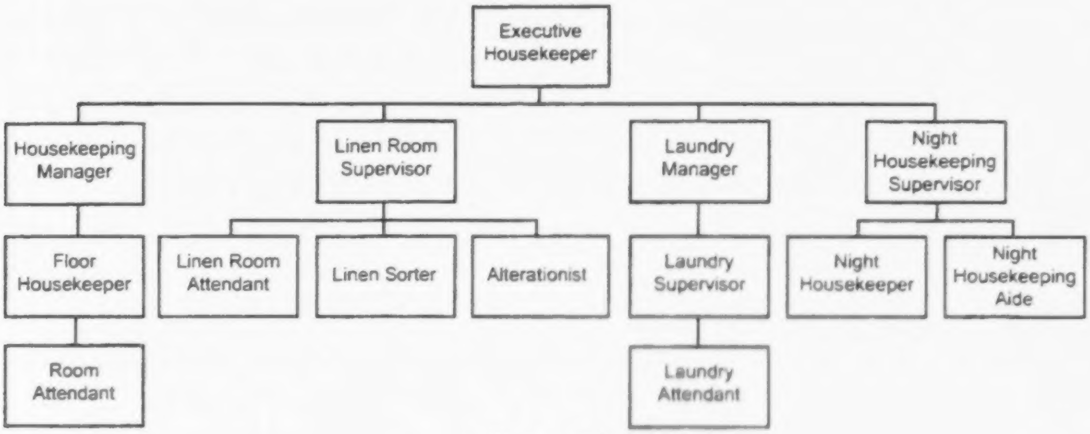

Executive Housekeeper
Housekeeping Manager
Linen Room Supervisor
Laundry Manager
Night Housekeeping Supervisor
Floor Housekeeper
Linen Room Attendant
Linen Sorter
Alterationist
Laundry Supervisor
Night Housekeeper
Night Housekeeping Aide
Room Attendant
Laundry Attendant

Figure 7.1

Communication between departments is conducted in a particular order, referred to as ***company protocol*** or using the proper channels. In large businesses, this chain of command may be provided in written form to employees. In smaller organizations, the chain of command may not be recorded, so employees must become familiar with the company chain of command over a period of time. In this situation, employees need to listen carefully and ask appropriate questions in order to understand the operating structure of the business.

It is important for employees to follow the proper channels with work-related issues. Employees should speak to their immediate supervisor first before taking the matter to higher management. Bypassing one's immediate supervisor is referred to as "going over the boss's head" and is considered unprofessional. In most businesses, this practice is frowned upon and may reflect badly upon the employee.

Each employee is accountable to a supervisor. ***Accountability*** involves answering to someone for work done. The success of a company depends on employees, supervisors, and employers sharing responsibilities fairly. Supervision is an essential part of ensuring that all parts of the business are fulfilling assigned responsibilities.

Ethics

As discussed in Chapter Four, principles and standards of conduct that govern a profession, business, or group of people are referred to as ethics. Many professional groups and businesses establish a code of ethics or written set of standards. Group members or business employees are expected to follow the standards set by the organization. ***Ethical behavior*** is the personal behavior of a group member or business employee who follows the subscribed standards.

Employees in the field of institutional maintenance are engaged in a variety of tasks that require ethical behavior. In any job, there are many opportunities for an employee to choose between ethical and unethical behavior. For example, housekeeping employees may see personal belongings, jewelry, or money in guest and

288 BEST COPY AVAILABLE

patient rooms. Resisting the temptation to interfere with these items shows ethical behavior.

The housekeeping and maintenance staff are responsible for the care of expensive equipment and the proper use of a variety of supplies and tools. Handling equipment and supplies in a responsible manner and ensuring that the standards of the business are followed shows ethical behavior. When a company sets and enforces policies, employees find it easier to make ethical decisions.

Employers and customers expect employees to be honest, reliable, and to have moral integrity. Employee actions affect the reputation of the business and relationships with customers. Also, employee actions affect relationships with coworkers.

Management should serve as role models for employees by serving as examples for ethical behavior. When management is involved in unethical business practices, a message is sent to employees that unethical behavior is acceptable or will be overlooked. By setting positive ethical examples, by carefully screening employees for ethical practices, and by taking prompt action when unethical behavior occurs, management can develop a strong ethical team.

Employee Orientation

Businesses conduct employee orientations to familiarize new employees with the company. Generally, orientation meetings are structured so new employees are presented with the following information:

- Overall summary of the business
- Introduction to and welcome from company officials
- Explanation of company policies, procedures, and benefits
- Tour of the facilities

Employee handbook. During the orientation, employees receive personal copies of the policy manual or employee handbook. This book outlines company rules and lists information regarding insurance, sick leave, vacation, and other company benefits. Depending on company policies, the orientation process may last from a few hours to several days.

Probation Periods

At the beginning of employment, new employees are trained according to company standards set for their jobs. This training period is known as the ***probation period*** and may last anywhere from thirty to ninety days. Employees successfully meeting the standards by the probation period deadline are allowed to continue employment.

The probation period allows for both employer and employee to evaluate each other. It also provides new employees an opportunity to evaluate the job situation. Supervisors may look for employee qualities such as the following:

- Initiative
- Acceptance of responsibility
- Performance of the job according to company standards
- Ability to work well with others

During the probation period, new employees may take the opportunity to determine whether they:

- enjoy doing the assigned work.
- can adhere to the production schedule.
- are being paid adequately for the work required.
- are offered opportunities to learn new skills.
- have access to promotions within the company.

Attendance

Good attendance is an important job requirement in any organization. Every employee is expected to report for work regularly and on time. Failing to show for work and chronic tardiness are unfair to other employees who must adjust work assignments to ensure that the absent or tardy employee's work is done. Such situations result in resentment among coworkers and can affect work production and productivity. A poor work record may affect an employee's opportunities for promotions and future employment recommendations.

As soon as employees realize they will be late to work or need to stay out because of an illness or emergency, they should place a call to the employer. Prompt notification enables management to arrange for replacements and make needed staffing adjustments. Usually, the employee handbook identifies the person to call when needing to report necessary tardiness or absences.

Procedures that should be followed when employees return to work are often included in the employee handbook. Most companies require that forms be completed to record an absence or to apply for sick or vacation leave. Some companies require that employees absent due to illness submit a written excuse from their doctor. Continual absenteeism and chronic tardiness are regarded by management as serious concerns that may result in disciplinary action.

Performance Appraisals

Supervisors evaluate employees through a performance appraisal process. The ***performance appraisal*** process entails using a company-issued performance appraisal instrument or checklist to document the employee evaluation. Often, performance appraisals are performed at certain times throughout employment, including the probation period. Evaluations allow the employee and the supervisor, together, to assess performance and to set new goals. Employees should view appraisals as constructive. Suggestions offered by management may serve as important steps in achieving new goals and working toward advancement.

Evaluations are management tools used to ensure that productivity maintains high standards. The items listed on the evaluation instrument relate to policies and procedures of the company. Employee job descriptions may be included for review by supervisors during this process. Additionally, employee characteristics are evaluated. Each item on the appraisal should be clearly explained to the employee. These may include:

- Initiative
- Leadership
- Cooperativeness
- Attitude
- Reliability
- Punctuality
- Personal habits
- Grooming
- Hygiene

PERFORMANCE
REPORT

Incident files. Some companies maintain individual incident files for each employee. ***Incident files*** are used to collect information that establishes and verifies employee job performance. Each item placed in the file should be discussed with the employee. Often, the item is signed by both the employee and the supervisor following discussion and before filing. Incident files should be kept confidential, and employees should be able to review the contents of their personal files upon request. Employee performance appraisals are often kept in incident files.

Disciplinary Action

Failure to observe company rules, procedures, and policies can result in disciplinary action. Such action can involve a private discussion with the supervisor, a written notice of misconduct, a suspension or probationary period, or a termination. The disciplinary action process involves a series of steps.

Verbal warning. Usually, when disciplinary action is needed, the first step is a verbal warning. Supervisors may conduct this informally by speaking with the employee in a work area or other public place. A more formal verbal warning may be held in the supervisor's office. The verbal warning is used to establish employee understanding of the supervisor's expectations.

Conference. Should the employee fail to perform work or display appropriate conduct after a verbal warning is issued, the next step for management may be to hold a conference with the employee. The conference helps determine if the employee understands the rules involved or the standards of work expected. It may be required that a record stating employee understanding be signed and placed in the employee incident file.

Written notice. If employee performance or behavior does not improve after the verbal warning and conference, a written notice of disciplinary action may be prepared. Management may present the employee with a written notice documenting employee failure to meet company standards. The notice, sometimes referred to as a "growth plan," may also state how work performance can be changed to meet set standards.

In a private meeting with the supervisor, the written notice is presented to the employee. Together, the supervisor and employee review and discuss the written notice. Then, the employee signs the dated notice. By signing, the employee agrees that the notice has been received, reviewed and discussed, and is understood by the employee. The notice is then placed in the employee incident file.

Dismissal. When management has exhausted all other types of disciplinary action, the situation may require more drastic measures. Should an employee continue not to adhere to company policies and procedures after being repeatedly warned, the supervisor may take one of the following steps:

- Place the employee on a probationary period
- Suspend the employee from work without pay
- Immediately dismiss the employee from the company

Being immediately dismissed from employment results in economic consequences for the employee. Also, this type of dismissal may make it difficult for the individual to secure another job right away. Employers question employee actions that result in immediate dismissal. Generally, prospective employers contact past employers, as companies want to know the risks involved in hiring individuals with this type of track record.

Misconduct. There are some situations in which immediate dismissal is used first, without management being required to follow the disciplinary action steps. Employee misconduct is such a situation. Examples of employee misconduct that may result in immediate dismissal follow:

- Unauthorized use of records or identification material
- Theft or misuse of company property
- Intentional furnishing of false information (such as on a job application)
- Use of force or violence with management, coworkers, or customers

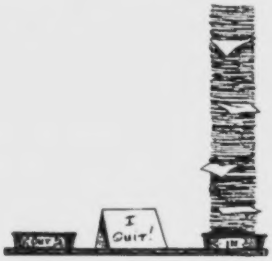
- Physical abuse of any person on company property
- Unauthorized entry or use of facilities
- On company property, the use, possession, or distribution of drugs, alcoholic beverages, or any federal or state regulated substance
- Indecent or obscene conduct on company property or at a company sponsored or supervised function
- Failure to comply with the lawful direction of the management where such directions are issued in the performance of job duties
- Engaging in a second business or profession during company working hours
- Disclosing confidential information acquired by reason of the position

Unless a work situation is life-threatening, could lead to injury, or is immoral, the employee has the responsibility to follow company policies. Any disagreements with company policies and procedures should be discussed with a supervisor. When employees feel company rules cannot be followed, it is better to resign from their jobs rather than to be dismissed.

Sometimes, companies must terminate employees due to a lack of funding or lack of work. When such situations occur, the terminations may be referred to as "laying off employees" or "down-sizing." Most businesses try to move productive employees into other positions rather than terminate employment when such reorganization occurs.

Resignation

Resignation occurs when employees voluntarily relinquish, or leave, a job. Certain company procedures are involved when employees resign. The company may have a required form the employee completes. This is a formal notification of resignation that is given to management. If this is not the case, most employers will accept an employee's written letter of resignation. Small businesses may accept a verbal resignation. Employees may resign for a variety of reasons. Some of these reasons include:



- Relocation
- Other job opportunities
- Dissatisfaction with the work situation
- Starting/returning to school

The amount of time an employee must work following the notice of resignation depends on company policy. A general guideline is that an employee should expect to work at least one pay period following the notice. Therefore, the employee would work according to the following guidelines:

- One week when paid weekly
- Two weeks when paid twice a month
- One month when paid monthly

Circumstances may hinder an employee from working the recommended amount of time following a notice of resignation. For example, if an employee must move in two weeks, there may be no choice about how long the individual can work after resigning. In a situation such as this, the matter should be discussed with management. Employers are more likely to provide good references when employees show responsible behavior by following proper procedures when resigning from a job.

Dress Codes and Uniforms

Dress Codes. Most businesses establish employee dress codes and grooming requirements. The company dress code may be specific or unstructured. Generally, specific dress codes are outlined in the employee handbook or the procedures manual. If the dress code is unstructured, management may provide guidelines for appropriate types of work clothes.

Uniforms. Some jobs require employees to wear uniforms. Uniforms encourage a clean, neat appearance and help identify company employees. Some businesses provide uniforms at no cost to employees or provide discounts on the purchase price of uniforms. Companies may also pay for cleaning costs. Employees who must buy their own uniforms should keep records of the purchases, as these costs are tax deductible. When no uniforms are required, it is important for employees to wear clothing appropriate for the assigned job responsibilities.

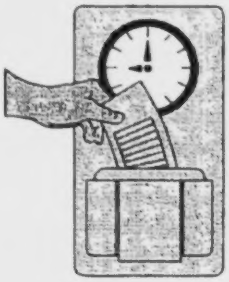
Personal Hygiene. In addition to adhering to company dress codes or uniform requirements, it is important for employees to consistently practice good personal hygiene. Being clean and neatly groomed projects a good image to the public, which reflects well on both the individual and the employer. As with dress codes and uniform policies, general grooming requirements may be identified by management. These requirements may be outlined in the employee handbook or procedures manual. Occasionally, personal hygiene and grooming requirements are addressed at new employee orientation meetings.

Time Clocks

Most employees are paid an hourly wage - the rate of pay multiplied by the total hours worked for a specific schedule. This schedule can be weekly, biweekly (26 pay periods per year), bimonthly (24 pay periods per year), or monthly. Most commonly, hourly employees are paid either weekly or bimonthly.

To accurately calculate hours worked, some businesses utilize time clocks. A ***time clock*** is a device that is placed near the employee entrance to a business, the supervisor's office, or the employee break room. Each hourly-paid employee is required to use the time clock to record exact arrivals to and departures from work. In some businesses, all employees are required to use a time clock whether they are paid hourly wages or not. The time clock operates in the following manner:

- Management provides a time card for each employee.
- Upon arriving for work, the employee inserts the time card into the time clock.
- The time clock stamps the time on the card so that the arrival time is recorded.
- If employees are required to clock out for break periods, then the same procedure is used for recording the exact time the employee left for and returned from a break.
- When leaving work, the employee inserts the time card into the time clock to stamp the exact time of departure.



When using time clocks, it is unethical for employees to clock in and out for each other. An unspoken honorary system is in place when time clocks are used. Employers expect their employees to be honest and trustworthy when using time clocks. Misuse of time clocks may result in disciplinary action or dismissal.

Computer terminals that utilize employee IDs are slowly replacing time clocks. With these terminals, employees enter personalized identification numbers upon arriving for and departing from work. This system greatly eliminates employees' clocking in and out for each other.

Identification Badges

Some businesses require employees to wear identification (ID) badges. If this is the case, the company provides the badges. Generally, each badge displays the employee name and title or department.

In some businesses, identification badges have magnetic strips that can be read by scanners. These badges can be used for clocking in and out, thereby eliminating the need for a time card. The ID badge may also allow access into and out of both buildings and company parking lots, and may be used for charging meals in the company cafeteria.

Businesses with large staffing may use identification badges to help maintain security. For instance, in addition to the employee name and title or department, a company may incorporate varying background colors or identifying symbols on the badges. These differences in badges enable security personnel and other employees in selected areas to recognize authorized personnel.

Identification badges also help customers recognize company employees. Often, when customers can see the employee's name on the badge, the contact between them becomes more personal.

Complaints and Grievances

In business, a complaint or ***grievance*** is a formal expression of disagreement that may be related to a variety of situations. An employee may choose to submit a formal complaint about issues such as:

- Work hours
- Working conditions
- Work assignments
- Performance appraisals
- Merit raises
- Interpretation of company policies
- Oral or written reprimands

COMPLAINT DEPT.
CLOSED

Before issuing a formal complaint, an employee should discuss any problems with the immediate supervisor. If no solution is reached, the employee may submit a written complaint to the second level supervisor for further consideration.

Employees should follow company policies when submitting formal complaints or grievances. For instance, complaints and grievances should be submitted only when the employee has a serious and legitimate disagreement with a work situation. Employees who constantly complain contribute to a negative work environment. It is important to remember that no work situation is perfect and that most problems can be solved by calmly discussing complaints with a supervisor.

Labor Unions

In the field of institutional maintenance, workers may be members of labor unions. A ***labor union*** is an organization of workers associated to promote and protect the welfare, rights, and interests of its members. Labor unions have had a significant impact on businesses and their work schedule regulations. The eight-hour work day and the forty-hour work week are major accomplishments credited to labor unions.

Union members elect representatives who serve as agents and spokespersons for both the group and individuals within the group. For instance, a union representative may present an employee's complaints or grievances to management. And, a union representative may work with company officials when negotiating some of the following:

- Better working conditions
- More competitive salaries
- Increased benefits
- Fair treatment of workers

Labor union membership requirements are determined both by the state in which the union operates and by company policies. If membership in a union is required, the company is known as a ***closed shop***. If membership is optional, the company is known as an ***open shop***.

◆ Essential Questions: Organizational Policies ◆

1. In what types of situations would it be especially important for institutional maintenance employees to display ethical behavior?
2. Why are employee probation periods used by some companies?
3. Why is it important to attend work consistently?
4. What are example reasons for dismissing an employee?
5. How should an employee present a complaint to a supervisor?
6. What are examples of ways that labor unions have impacted businesses?

WORK SCHEDULES

Office buildings, some manufacturing plants, and some retail stores close on weekends and holidays. Other businesses, such as hotels, health care facilities, and shopping malls, are open during weekends and holidays. Therefore, institutional maintenance and services management must prepare work schedules to ensure that a clean and pleasant environment is constantly maintained.

Work Hours

Businesses maintain work schedules based on the nature of the business, business size, production schedules, and number of employees. Many businesses have regularly scheduled work hours. A regular work schedule consists of forty hours of work per week, or eight hours per day. A part-time work schedule is one that consists of less than thirty hours per week.

Shift Schedules

Health care facilities and other businesses that are open twenty-four hours a day use shift schedules. The term ***shift*** refers to work schedules in which one crew works a designated length of time or schedule and is then relieved by another crew who do the same. Typical shift hours for businesses that are open twenty-four hours a day include the following:

- 7:00 A.M. to 3:30 P.M.
- 3:00 P.M. to 11:30 P.M.
- 11:00 P.M. to 7:30 A.M.

STAFF
PARKING

Work hours vary greatly among different types of establishments that require housekeeping personnel. For example, public establishments such as office buildings may require two shifts of housekeeping personnel. One shift works during business hours and performs limited housekeeping duties. The second shift works after business hours and provides thorough housekeeping.

Rotation Schedules

Some businesses use rotation schedules. These schedules can be assigned to teams of employees or to individual employees. A rotation schedule ensures that:

- the business has a full staff every workday.
- no employee will work more than five days in any workweek.
- weekend assignments are shared equally among employees.

Flexible Work Schedules

Employers may provide flexible working hours or schedules in certain situations. Flexible work time is known as ***flextime***. Flextime allows workers to set their own schedules or work hours - within limits. Employees are allowed flexibility in choosing the time but not the number of hours they work. Working parents, students, and others who may have difficulty working the regular hours observed by the business use flextime. Once a schedule is set, the employee is expected to follow it every week. If changes become necessary, the supervisor must be notified within an appropriate amount of time.

Job Sharing

In ***job sharing***, two people are hired part-time to do one full-time job. Working time, job salary, and company benefits are split by both employees. Job sharing provides more free time for the employees. And, employers gain by having two satisfied, productive employees.

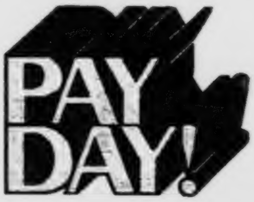
◆ **Essential Questions: Work Schedules** ◆

1. How are employee work schedules planned by management?
2. What are examples of different types of work schedules?

EMPLOYEE COMPENSATION

Compensation is payment for work done. Companies compensate employees by paying salaries. Employee salaries may be calculated hourly, weekly, monthly, or yearly.

There are different types of compensation plans. Each business has policies regarding how employees are paid. In most cases, a business will use different compensation plans for different types of employees. For example, employees whose primary assignments involve administrative tasks are more likely to be paid on a straight salary compensation plan rather than on hourly wages.



Compensation Plans

Employees are compensated through various methods. Typically, a business pays employees different amounts, depending on experience and responsibilities. Some employees receive the same amount in each paycheck while others receive a different amount each time.

When employees are paid by the hour, then the amount of money they earn depends on the number of hours they work. These employees may be paid overtime when they work more than a certain number of hours per week. ***Overtime*** is time and a half or one and one-half times the normal pay rate.

In general, salaried employees receive a fixed amount of pay regardless of how many hours they work. Companies may pay salaried employees overtime under certain circumstances. Others may receive a different amount in each paycheck because they receive a commission or salary and a commission. The different types of compensation include the following:

- Wage
- Straight salary
- Bonus
- Incentive

Wage. A ***wage*** is an hourly rate of pay for an employee. A minimum wage was first established in 1938. The original federal law called for a minimum wage of twenty-five cents per hour. Since 1938, the minimum wage has increased steadily and is projected to continue to increase.

Minimum wage is the least amount of money an employee can be paid per hour. The minimum wage rate is set by law. As the minimum wage increases, the cost of operating a business increases in a variety of ways. Besides the increase in compensating minimum wage employees for their work, other employees expect a wage increase when the minimum wage increases. For many jobs that do not require college degrees, entry-level employees are hired at minimum wage. As experience is gained, hourly salaries may increase to amounts above the minimum wage rate.

Straight Salary. ***Straight salary*** offers employees a set rate of pay for their work. The salary is calculated by the week, month, or year and the paychecks are distributed weekly, biweekly, or monthly. Employees who receive a straight salary are referred to as salaried employees.

The straight salary method of compensation is used most often with office workers and management. On the occasion that salaried employees work overtime, they do not receive extra pay. However, salaried employees usually receive such benefits as paid vacations, sick leave, and paid holidays.

Bonus. A ***bonus*** is an extra payment that is given to an employee for excellent work or as a share of the business' profits. Many businesses give employees a bonus at the end of a profitable year or at the end of a successful project.

Incentives. An ***incentive*** is a reward that serves to motivate employees. Incentives tend to tie employee performance to personal initiative. Examples of incentives include:

- Employee-of-the-Month programs
- Cash bonuses
- Complimentary services or goods
- Vacation time in addition to regular annual leave
- Designated parking spaces
- Public recognition
- Stock options

Not all businesses offer incentives. In recent years, many employers have decreased the use of incentives for a variety of reasons. However, some large businesses are based on a philosophy of providing incentives to employees. These companies may offer a variety of employee incentives ranging from cosmetics to cars.

Receiving Compensation

Gross Pay. Most employees receive pay in the form of a company check. Typically, the check is not for the full amount earned due to payroll deductions. Several steps are involved in preparing a payroll. First, each employee's gross pay is calculated. ***Gross pay*** is the total amount of income that an employer owes an employee for a scheduled amount of time. The amount of income might be a straight salary or it might be based on hourly wages worked during the payroll period. After the gross pay is calculated, payroll deductions are taken out.

Payroll Deductions. ***Payroll deductions*** refer to both required and voluntary amounts taken from the gross pay. Two well-known required deductions are Federal Income Tax Withholding and FICA. ***FICA*** stands for Federal Insurance Contributions Act. The FICA deductions are Social Security payroll taxes. The amount to deduct for each of these can be calculated by using charts provided by the Internal Revenue Service (IRS). In addition to these deductions, some states also require a state income tax to be taken out.

Voluntary deductions are termed ***employee contributions***. For instance, employees may have payroll deductions made that are invested into a group health insurance program or savings plan.

Net Pay. After deductions and contributions are subtracted from gross pay, the remaining amount is known as ***net pay*** or take-home pay. Net pay is the amount that the employee actually receives on the paycheck. A stub attached to the payroll check provides a listing of the types and amounts of deductions subtracted from the gross pay.

◆ *Essential Questions:* ◆ *Employee Compensation*

1. What methods might a company use to compensate its employees?
2. How might a business use bonus and incentive plans?
3. How is an employee's net pay calculated?

COMPANY BENEFITS

In addition to a paid salary, many employers compensate employees by providing benefits. Company ***benefits*** are indirect forms of payment for work other than money. Federal law requires businesses to provide some benefits, such as Social Security. Other benefits that may be offered to employees include worker's compensation insurance and unemployment insurance. Depending upon the structure of the business, company benefits may apply only to full-time employees. It is the employee's responsibility to inquire about any benefits for which he or she may be eligible.

Social Security

The U. S. Social Security System is the federal social insurance program of the United States. It is a federal government program that offers financial assistance for workers and their families. The four main benefits provided through the U.S. Social Security System include the following:

- Retirement benefits
- Survivor (death) benefits
- Disability benefits
- Medicare benefits (hospital and medical insurance)

Taxes collected for the social security program are taken as payroll deductions. These deductions are required by the Federal Insurance Contributions Act (FICA).

Worker's Compensation Insurance

Some states offer worker's compensation insurance for their employees. Worker's compensation insurance protects employees who get injured on the job. The insurance pays for all medical bills and loss of salary until the employee is able to return to work. Generally, the benefit rates are established by each individual state. However, the insurance can be purchased through most insurance companies.

Unemployment Insurance

Unemployment insurance is designed to compensate certain categories of workers for unemployment that is involuntary and short-term. Unemployment insurance programs were created primarily to provide financial assistance to workers who were laid off from their jobs. The compensation period is long enough to enable the worker to be hired at another job or be rehired at the original job.

The funding for the unemployment insurance is paid through employer contributions. These contributions are referred to as ***premiums***. It is the employer contributions of premiums that are used to pay former employees who file for unemployment benefits. In some states, nonprofit corporations can decide not to pay premiums. Instead, they pay the actual cost of claims filed by their former employees.

Paid Vacations and Sick Leave

Vacation leave, also known as annual leave, and sick leave are referred to as employee benefits because, usually, the employee continues to receive pay during the vacation period or time of illness. Some companies encourage their employees to take vacation leave at certain times during the year when the workload is light. For example, some theme parks close at certain times during the year in order to repair and maintain equipment.

Generally, employees are required to obtain permission from supervisors when scheduling vacation time. Those employees who have been employed the longest may be given the first choices for vacation leave. Additionally, new employees may be required to work a certain period of time, such as six months or a year, before a paid vacation leave can be taken.

The amounts of vacation leave and sick leave allowed each employee varies from company to company. In some businesses, employees accrue (earn) certain numbers of hours of vacation leave and sick leave for each month of employment. In other companies, each employee is assigned a specific number of days per year that can be used as annual leave and sick leave. Further, some companies require employees to use all vacation leave by a certain date during the year. Other companies have no set date by which sick leave must be taken. In this case, employees are able to collect sick days without fear of losing them.

It is important that employees use sick leave wisely. Sick leave should be used only for medical reasons. Depending on company policy, the employee may have to provide management with a written statement from their doctor verifying why sick leave was taken.

Holidays

Holidays are those days set aside by law or custom to commemorate (observe) an event or to serve as a day of freedom from labor or work. Private businesses are not required to observe holidays. Commonly, Sunday is recognized as a holiday but is not required by law.

Congress has set aside special holidays at different times in the history of the United States. The President and Congress designate the legal federal holidays observed by the District of Columbia and federal employees across the country. Each state determines which specific holidays it will observe. The governor proclaims the holidays observed by each state.

Most companies observe certain holidays during the year. It is up to the employer to determine which days are set aside as paid company holidays. Employees are paid for these days even though they may not work on these holidays. Banks and federal offices close on federal legal holidays during the year. Table 7.1 includes a list of recognized federal holidays.

Federal Holidays

January 1	New Year's Day
Third Monday in January	Birthday of Martin Luther King, Jr.
Third Monday in February	Washington's Birthday
Last Monday in May	Memorial Day
July 4	Independence Day
First Monday in September	Labor Day
Second Monday in October	Columbus Day
November 11	Veteran's Day
Fourth Thursday in November	Thanksgiving Day
December 25	Christmas Day

Table 7.1

Health Insurance

Most company-sponsored insurance plans or group health insurance plans cover hospital and medical costs. Types of group health insurance coverage that may be available through company-sponsored plans include the following:

- Basic Medical - covers hospitalization, medicine, doctor visits, and laboratory tests.
- Major Medical - covers expenses from large medical bills. It begins paying where basic medical insurance stops.
- Dental - covers routine cleanings and a percentage of approved dental and orthodontic expenses.
- Disability - provides regular income payments when a person is unable to work because of an illness or injury. The maximum coverage is two-thirds of a worker's gross income.

In general, group health insurance provides more coverage at a lower cost than individual coverage. The company may pay part or all of the health coverage premiums (payments for the insurance policy, which may be made in one sum or in installments). Additional family members may be included on the employee's policy; the company may pay their premiums or a portion of their premiums.

◆ Essential Questions: ◆ Company Benefits

1. What are the main benefits provided through Social Security for workers and their families?
2. What are various company benefits provided to employees?
3. How are vacation and sick leave earned by an employee?
4. How does the observance of holidays differ between private businesses and federal offices?
5. What are some types of group health insurance coverage that may be available through company-sponsored plans?

THE VALUE OF COMPANY BENEFITS

The value of company benefits is an individual matter. A particular benefit may be very important to one person and meaningless to another. Individuals must evaluate each benefit according to the value they will receive from it.

The annual dollar value of company benefits can be determined by putting a dollar value on each benefit. For example, if a designated parking space is free at a place of employment, it would be considered a company benefit if the employee drives a car to work. This company benefit can be given an annual dollar value by locating a similar office or business where employees must pay for the parking. The yearly amount paid could be used as the annual dollar value for the parking benefit. By determining a dollar value for each benefit, a percentage of benefits can be determined. The following formula can be used to determine the percentage of an employee's salary that is company benefits:

Annual dollar value of company benefits
÷ Annual employee salary
= % of Benefits

The percentage of a company's benefits can then be compared to the national average. According to the United States Chamber of Commerce, the national average for 1990 was 37.6 percent.

People cannot spend benefits, but the benefits may be worth a great deal of money. Company benefits can add to the total family income level by reducing out-of-pocket expenses. Research has shown that the productivity and satisfaction of employees can depend on the type of support and benefits offered by the employer. Many employers say that their employees are more productive and satisfied if they are provided supportive benefits or policies that contribute to the comfort and stability of families.

Company benefits are an important part of the total compensation package. Benefits vary from one company to another. Also, benefits may vary according to an employee's position. As an employee moves up in a company through promotions, benefits may increase. Sometimes higher than normal salaries are offered to make up for low company benefits. However, a lower salary with excellent company benefits may provide the best total pay package.

◆ *Essential Questions:* ◆ *The Value of Company Benefits*

1. Who evaluates the value of company benefits?
2. What formula can be used to determine the percentage of an employee's salary that is company benefits?
3. How do company benefits contribute to employee job satisfaction?

Chapter Highlights

- Each business is structured on the basis of goals, policies, and procedures. A mission statement is a broad statement of purpose. Other more specific goals are based on the mission statement.

- One way businesses set long-range goals is through the development and implementation of an operational budget. The budget is the company's first priority as it outlines the company's financial projection. Items that are detailed in the budget include total sales, total salaries and wages, total employee costs, and total controllable costs.

- A chain of command is a structure of ranks within an organization and is often illustrated through the use of organizational charts. It is important for employees to follow company protocol and communicate through proper channels.

- Standard operating procedures (SOPs) are written procedures for the tasks that are done on a regular basis. SOPs standardize routines so that all employees know what is expected of them. Procedures manuals are often used to describe how a job is currently done.

- Job performance standards are statements of conditions that will exist when a job is performed satisfactorily. These standards are often included in procedures manuals.

- Employers and customers expect employees to be honest, reliable, and to have moral integrity. Employee actions affect the reputation of the business and relationships with customers.

- Orientation is a process used to help new employees become familiar with a business.

- Various policies exist in different businesses depending on the company's mission and management. Company policies may relate to the following areas:
    - ethics
    - probation periods
    - attendance
    - performance appraisals
    - disciplinary action
    - resignation
    - uniforms and dress codes
    - use of time clocks
    - identification badges
    - complaints and grievances
    - labor unions

(continued on page 100)

Chapter Highlights

(continued from page 99)

- Work schedules are used by management to ensure that there are enough employees scheduled for the hours a business operates. Workers are sometimes assigned schedules according to shifts.

- Compensation is payment for work done. Methods of compensation include wages, straight salary, bonuses, and incentives.

- Unemployment insurance is designed to compensate certain categories of workers for unemployment that is involuntary and short-term.

- The U.S. Social Security System is a federal government program that offers financial assistance for workers and their families. Taxes are collected for the social security program through payroll deductions.

- Company benefits are indirect forms of payment for work other than money. Benefits can be an important part of the total employee compensation package. Although people cannot spend benefits, company benefits can add to the total family income level by reducing out-of-pocket expenses. Individuals must evaluate each benefit according to the value they will receive from it.

Chapter 8

Safety Policies

Chapter Focus

The following Essential Knowledge and Skills are discussed in this chapter:

4A Evaluate potential safety hazards in the workplace.
4B Practice procedures that contribute to safe working conditions.
4C Apply safety and sanitation procedures when performing assigned tasks.
4D Analyze government regulations impacting safety and sanitation practices in institutional maintenance operations.
5A Demonstrate safe and responsible storage, use, and disposal of materials.
5B Describe environmental issues specific to an assigned workplace.
5C Demonstrate appropriate responses to emergency situations.
11G Predict the impact of technological advancements on the institutional maintenance management and services industry.

Chapter Vocabulary

acquired immunodeficiency syndrome (AIDS)
biodegradable
communicable diseases
cumulative trauma disorders (CTDs)
disaster
Environmental Protection Agency (EPA)
ergonomics
Federal Emergency Management Agency (FEMA)
flammable chemicals
flash point
fuel
"Green" products
Hazard Communication Standard (HCS)
hepatitis B (HBV)
hepatitis C (HCV)
human immunodeficiency virus (HIV)
material safety data sheet (MSDS)
percent volatile
permissible exposure limit (PEL)
repetitive strain injuries (RSIs)

Chapter Vocabulary, cont'd.

- safety
- safety standard regulations
- security
- spontaneous ignition
- synergism
- threshold limit value (TLV)
- toxicity
- work-related musculoskeletal disorders (WMSDs)

While the terms security and safety have nearly the same meaning, there are distinguishing differences in how they are used in this reference material. ***Security*** refers to the freedom from fear and anxiety, as well as protection against the loss or theft of property. ***Safety*** is the term used when discussing fire and accident prevention, disasters, and protection devices.

Both the safety and security of guests, patients, employees, property, and company assets are the responsibility of institutional management. However, all individuals within an establishment are responsible for safety. Employees should be trained to recognize possible safety hazards. When a safety policy violation is observed, a supervisor should be notified immediately. Being observant and recognizing possible safety hazards are ways that employees can ensure a safe working environment.

COST OF WORKPLACE INJURIES

The rapidly growing service industry poses new safety and health challenges for industry, labor, and government. For example, the Bureau of Labor Statistics (BLS) reported that in 1993, six of the ten industries with the largest numbers of workplace injuries were in the service industry. These injuries can be a financial burden on businesses. According to the National Safety Council, the average annual cost of all injuries is estimated at more than $100 billion. Work-related injuries can cost businesses about $1,000 per injury. Following are some of the costs companies pay out when employees are injured on the job:

- Time spent investigating and reporting injuries
- First aid administration
- Production or services delays
- Replacement workers training
- Overtime costs paid to uninjured workers

◆ *Essential Questions:* ◆
Cost of Workplace Injuries

1. How can employees help ensure a safe working environment?
2. What are some of the costs companies pay out when employees are injured on the job?

SAFETY STANDARD REGULATIONS

To maintain a safe environment for guests, patients, and employees, management establishes safety standard regulations. The ***safety standard regulations*** are formal statements of the company's rules regulating safety practices. These policies ensure that employees are practicing safe procedures in every job — no matter how large or small the task.

All individuals within an establishment are responsible for safety. Both management and employees share basic responsibilities in maintaining a safe work environment. Table 8.1 provides a listing of both management and employee responsibilities.

Safety regulations are based on common sense. It is important for employees to be aware of the task at hand and not to allow their minds to wander. Many injuries occur when individuals daydream instead of staying focused.

Following is a list of typical safety regulations that management might include in the company rules regulating safety practices:

- Use rubber mats and runners near entrance areas to avoid dangerous falls during wet weather.
- Report any bulbs or florescent fixtures that need replacement. Dark, unlit corridors reduce vision accuracy and may result in accidents.
- Plug in power equipment immediately before use. Unplug the equipment immediately after use.
- Know and practice the proper technique for lifting heavy objects. Get a coworker to assist when needed.
- Avoid horseplay - it can result in serious injury.
- Observe all safety signs and notices.
- Smoke in designated areas only.
- Watch your step and use handrails when using the stairs.
- Dump materials out of waste bins. Reaching in may result in cuts.
- Unplug electrical equipment prior to cleaning and repairing. When unplugging from the wall, use the plug not the cord.

<table>
<tr><th colspan="2">Workplace Safety Responsibilities</th></tr>
<tr><th>Management</th><th>Employee</th></tr>
<tr><td>• Provide equipment that has been inspected and certified safe to operate.
• Include safety procedures in written job tasks and performance directions.
• Train supervisors and employees in workplace safety measures.
• Conduct regular safety inspections.
• Investigate all accidents and make needed changes to prevent any future occurrence.</td><td>• Learn and adhere to company safety standard regulations.
• Follow safety regulations when operating company equipment.
• Observe and report all hazardous conditions to a supervisor
• Caution coworkers about unsafe practices.
• Know the company policy for administering first aid.</td></tr>
</table>

Table 8.1

◆ ***Essential Questions:*** ◆
Safety Standard Regulations

1. What are some management responsibilities for providing a safe workplace?
2. What are some employee responsibilities?
3. What are examples of safety regulations that management might include in the company rules regulating safety practices?

OSHA REGULATIONS

As is true of all businesses in the United States, institutional maintenance and housekeeping services follow safety guidelines set by the federal Occupational Safety and Health Act of 1970. This act established the Occupational Safety and Health Administration (OSHA), whose mission is to assure safe, healthy working conditions for employees. OSHA makes it mandatory for employers to keep their places of business free from hazards that may cause death or serious harm to employees.

YOUR
HEALTH
AHEAD

OSHA regulations not only cover prevention of injuries but also concern for the health of employees. Employers must provide a healthy work environment. This includes reasonable temperatures, adequate ventilation, and minimal dampness. It also includes the right to a germ-free environment. Therefore, proper sanitation procedures must be followed.

Hazard Communication Standard

To protect employees who work with hazardous chemical products, OSHA established a ***Hazard Communication Standard (HCS)***, sometimes called the right-to-know law. Under this law, employees are ensured of their right to know about and to be trained in the use of hazardous chemical products. The HCS requires employers to inform employees of any hazardous substance used, manufactured, or stored in the workplace.
Additionally:

- Posters must be displayed that point out hazards and safety procedures.
- Chemicals must be properly labeled.
- Safety equipment must be available.
- Training must be provided for handling and using all hazardous chemicals.

The right-to-know law requires that employees be given training regarding the proper way to react to an emergency involving a hazardous chemical, in first aid procedures related to those chemicals, and in the location and usage of protective equipment and monitoring devices. Training must be provided for all personnel when any new hazard is introduced into the workplace or when any updated information is received about chemicals already in use. Refer to Table 8.2 for additional information on hazardous substances.

Material Safety Data Sheet. A ***material safety data sheet (MSDS)*** is intended to provide information about chemical products and their ingredients. The most common format for an MSDS is the one developed by OSHA (called "OSHA Form 20"). Often, these can be obtained from chemical suppliers. An institution may use a different style and layout, but it must include specific information. Additionally, all material safety data sheets must be written in English.

A MSDS must be completed on each hazardous product used in an establishment and must be kept on file. They may be stored

What is a Hazardous Substance?

- **Definition**. A hazardous substance is any chemical or material that can harm the body. Harm can occur either at the time of exposure or later. Hazardous substances may be solids, liquids, gases, dusts, vapors, or fumes.
- **Toxicity of the substance**. ***Toxicity*** is the extent to which a substance will cause harmful effects.
- **Chemical make-up**. Certain substances are naturally more hazardous than others because of their chemical ingredients or structure.
- **Dose or amount**. The amount of a substance to which an individual is exposed affects the chemical's degree of hazard.
- **Type of exposure**. A substance can enter the body through the skin, through the eyes, by breathing it into the lungs, or by swallowing it. Each of these routes of entry may cause a different type of effect.
- **Combinations of substances**. Sometimes two or more substances can react with each other to produce new substances or new effects. These may have properties different from those of the original chemicals, and could be more hazardous. This effect is called ***synergism***. An example is mixing chemicals, such as bleach and ammonia, that can create toxic fumes.
- **Personal susceptibility**. Individuals may have personal traits that put them more at risk. These can include diet, smoking, genetic tendency, sensitization or allergy to a particular substance, and pregnancy.

Table 8.2

in a notebook readily available to employees or be accessible through a computer in the work area. The MSDS provides detailed information about hazardous chemicals. Information that must be included on all material safety data sheets regardless of the format used is presented in Table 8.3.

Each employee must be trained in reading and understanding the MSDS and in following health and safety recommendations from the manufacturer. Employees should check with the supervisor for the MSDS on any chemical that they are required to use. Almost all chemical products used in housekeeping are defined by federal law as hazardous. Some institutions keep MSDS on chemicals that are not designated as hazardous. Following are examples of institutional maintenance occupations in which employees may work with or around potentially hazardous materials:

- Custodians: cleaning agents, bleach, waxes, and polishes
- Maintenance: paints, glues, acids, cutting fluids, metals, and various solvents
- Groundskeepers: pesticides, fertilizers, and other applied agricultural chemicals
- Housekeeping/Linen room workers: cleaning products, disinfectants, and bleach

Regulations concerning hazardous chemicals were designed to protect all individuals who come in contact with any substance that could pose a hazard — no matter how significant or insignificant the hazard may be. Learning to read and understand MSDS forms allows employees to safely handle and use chemicals and provide for quick and appropriate action to minimize injuries and health hazards should accidents occur.

Material Safety Data Sheet

1. Identifying Information:
   - Name, address, and phone number of the manufacturer, importer, or responsible party preparing or distributing the MSDS.
   - Name of the chemical, including any trade names and common names of the substance or its ingredients that have been determined to present a hazard. Also listed is the concentration of the chemical that represents safe exposure.

2. Physical and Chemical Characteristics:
   - Physical data describes the chemical's appearance, odor, and evaporation rate. The evaporation rate at room temperature is known as ***percent volatile***.
   - Chemical characteristics include the boiling point and the pH level of the product. The pH level is useful in comparing and selecting the appropriate products for cleaning and laundry.

3. Physical Hazards:
   - Flammability. This data describes the flash point of a chemical. ***Flash point*** is the lowest temperature at which a chemical will evaporate enough to ignite from a spark. Flash point below 100°F is flammable, flash point above 100°F is combustible, and flash point below room temperature (70°F) is dangerous.
   - Extinguishing media. The approved fire fighting method, such as water spray, foam, or other type of fire extinguisher, must be provided.
   - Unusual hazards or special fire fighting procedures are described.
   - Reactivity. In the reactivity data section, the ability of the chemical to react with other materials or conditions is noted. The chemical is described as stable or unstable. This refers to environmental conditions, such as heat or direct sunlight, that might cause a dangerous reaction. Conditions that might cause the chemical to change characteristics are listed. Materials that might cause the chemical to burn, explode, or release dangerous gases are discussed. These materials are said to be incompatible with the chemical. In addition, this section provides possible gases that might be released.

4. Health Hazards:
   - The section on health hazards lists signs and symptoms of overexposure, such as a skin rash, burn, headache, or dizziness.
   - Any medical conditions that might be aggravated by exposure to the chemical, such as asthma, will be mentioned in this section. This section points out whether or not the product has been found to produce cancer or birth defects. This is information that employees using the product have a right to know.

5. Primary route(s) of entry:
   - The primary routes of ingestion or how the product normally enters the body will be mentioned. Products can enter the body through the skin (dermal), through inhalation (nose/breathing), or through ingestion (mouth).

Table 8.3

6. OSHA Permissible Exposure Limit (PEL), Threshold Limit Value (TLV), or any other exposure limits used or recommended when available:
   - The ***permissible exposure limit (PEL)*** is the maximum exposure limit specified by OSHA and is legally binding.
   - The ***threshold limit value (TLV)*** is based on the level to which a person can be subjected for eight hours a day and 40 hours a week without experiencing any side effects. The TLV is the maximum limit recommended by professional health scientists, but it is not legally binding according to OSHA regulations.
7. Precautions for Safe Handling:
   - Procedures for cleanup of spills and leaks. This section explains the steps to take if a spill or leak occurs. In case of a spill or leak, employees should notify the supervisor immediately.
   - Protective measures. Protective items such as gloves, safety goggles, respirators, or other protective clothing may be required before beginning cleanup procedures.
   - Safe disposal procedures for the chemical are listed in this section also.
   - Special precautions. Additional precautions to follow when handling the chemical may include additional labeling information, storage temperatures, safety signs that should be posted, or any other special equipment or supplies needed for safe handling and use.
8. Control Measures:
   - Personal protective equipment. This section lists protective clothing and equipment required for safe handling of the chemical. Protective clothing includes eye goggles, gloves, and face masks.
9. Emergency and First Aid Procedures:
   - First aid and emergency procedures for treating overexposure are outlined. For example, skin exposed to certain chemicals should be flushed under running water for fifteen minutes.
10. Date of preparation or the last change made to the MSDS.
11. Name, address, and telephone number of the chemical manufacturer, importer, employer, or other responsible party preparing or distributing the MSDS, who can provide additional information on the hazardous substance and appropriate emergency procedures, if necessary.

Table 8.3, cont'd.

OSHA Compliance

Employers must comply with OSHA regulations or risk a fine. Employees may be required to attend compliance training classes as they begin a job and annually thereafter. The employer complies with the law by providing training in the safe use of hazardous chemicals. This compliance assures employee safety and guards against employer liability. Proper implementation of the right-to-know law helps make the workplace a safe and enjoyable environment.

OSHA has more than 100 standards that contain specific training requirements. Training must include a minimum of the following topics:

- Individual instruction on methods of material handling for each hazardous or toxic substance to which the employee will be exposed

- A summary of the employee's rights and obligations under the law
- A clear explanation of the labeling system used by the institution or the manufacturer
- Individual instructions on how to read and understand an MSDS
- Information on the requirements of the Hazard Communication Standard and on any operations in the employee's work areas where hazardous chemicals are present
- Provision of the location and availability of the following:
  - ✓ list of hazardous chemicals
  - ✓ MSDSs for the entire workplace
  - ✓ written hazard communication program
- Methods and observations that can be used to detect the presence of hazardous chemicals in the work area
- Information of all known physical and health hazards related to the use of hazardous chemicals. Physical hazards include combustible liquids, explosives, flammable materials, unstable materials, and water reactive materials. Health hazards include materials that are carcinogenic (known or suspected of causing cancer); materials that cause nausea, dizziness, and headaches; materials that cause skin, eye, and throat irritation; and materials that damage internal organs such as kidneys, liver, and central nervous system.
- Information addressing measures employees can take to protect themselves from the physical and health hazards associated with working around hazardous chemicals. Employees may be required to wear safety gear, such as:
  - ✓ gloves
  - ✓ aprons
  - ✓ respirators
  - ✓ goggles

Safety measures taken in the work area may include ventilated work areas, operating instructions, personal protective equipment, heat and smoke sensors, respirators, safety rules, and evacuation routes. Emergency telephone numbers, including poison control, should be posted near phones.

- Proper storage of hazardous chemicals. Institutions may design special storage areas for hazardous chemicals and infectious waste. These areas can be designed so that concrete curbs separate chemicals. Therefore, should a spill occur, chemicals would be unable to mix.
- Recycling and Waste Management Programs. Institutions may have a recycling program for managing chemicals, wastes, and greases from food service. Radiation detectors may be installed in the waste containment area so that radiation material is not placed in the regular trash system. Some institutions have on-site sterilizers to sterilize infectious waste before disposal.

In institutional maintenance services, the executive housekeeper is responsible for maintaining records, conducting training, and supervising employees to ensure compliance with OSHA regulations. This crucial job-related activity can require large amounts of time and extra staffing. Therefore, many businesses and health care establishments hire environmental contract services for waste management because it is more cost efficient than hiring, training, and supervising an in-house housekeeping and maintenance staff. Environmental contract services offer risk-free management of waste products by accepting any liabilities that may result from spills or accidents.

"Green" Products

Indoor Air Quality (IAQ) has become a hot topic among health-oriented groups and agencies. Organizations like the U.S. Environmental Protection Agency (EPA), the American Lung Association, the World Health Organization, and the National Heart, Lung, and Blood Institute have adopted or are adopting IAQ policies.

According to the American Lung Association, limited exposure to low levels of cleaning chemicals does not pose a serious health threat. However, harmful effects can take place when exposure occurs over a long period of time and from a variety of sources. The fact that housekeeping and maintenance personnel are exposed to a variety of chemicals, usually on a daily basis, has caused health-related concerns in many businesses.

Alternatives to hazardous cleaning chemicals are "environmentally preferable" products, referred to as ***"Green" products***. These products are biodegradable and leave little or no remaining residue. ***Biodegradable*** is the ability of a product to break down completely, with components returning to the environment without polluting it (this includes air and water pollution). To be considered safe and healthy, more than half of the "Green" product should biodegrade within 28 days and the balance of the product should biodegrade within a few months after its application. An example of a "Green" cleaning product is provided in Chapter Ten.

Essential Questions: OSHA Regulations

1. According to OSHA, what are some factors that contribute to a healthy work environment?
2. What must employees do to comply with the Hazard Communication Standard?
3. What information is included on a material safety data sheet (MSDS)? Why is this information important?
4. What are examples of institutional maintenance occupations in which employees may work with potentially hazardous materials?
5. What physical hazards are related to the use of hazardous chemicals? Health hazards?
6. What safety measures can employees take to protect themselves from the physical and health hazards associated with working around hazardous chemicals? What safety measures should be put in place by management?
7. Why are institutional maintenance and housekeeping departments looking at "Green" products as an alternative to using hazardous cleaning chemicals?

ERGONOMICS

Ergonomics is the study of how people and machines interact in their environment. It involves fitting the job task to the person doing the work - rather than forcing the person to fit the job. The study of ergonomics combines engineering, physiology, biomechanics, medicine, anthropometric measurements, and behavioral science. (Anthropometric measurements involve the study of human body dimensions). Most safety specialists are trained in ergonomic studies. Also, many large companies employ full-time ergonomists as staff members.

Injuries Related to Ergonomic Design

Work-related Musculoskeletal Disorders. When the tool used for the job and the physical characteristics of the worker are mismatched, ***work-related musculoskeletal disorders (WMSDs)*** can result. Any of the following factors can result in WMSDs:

- Repeating the same motion throughout the workday
- Performing work in an awkward position
- Performing tasks that require a great deal of physical force
- Repeatedly lifting heavy objects
- Any combination of the above

BEST COPY AVAILABLE

WMSDs are a serious problem for U. S. businesses and their employees. According to OSHA, more than 647,000 workdays were lost in 1996 due to WMSDs. Today, these disorders account for 34 percent of all lost workday injuries and illnesses. Research shows that these injuries cost businesses $15 to $20 billion in worker's compensation costs each year.

Many employers have developed effective ergonomics programs to address WMSDs in their workplace. Often, simple and inexpensive changes can greatly reduce WMSDs. For example:

- Adjusting the height of working surfaces, such as tables
- Varying the types of tasks that employees perform throughout the day
- Allowing short rest breaks throughout the day
- Reducing the sizes of items employees must lift
- Providing lifting equipment for heavy items or to aid in tasks requiring constant lifting
- Providing tools, equipment, and work environments designed in ergonomic principles

Cumulative Trauma Disorder. Another category for injuries related to poor ergonomic design is ***cumulative trauma disorders*** (***CTDs***). Sometimes these disorders are called ***repetitive strain injuries*** (***RSIs***). CTDs, or RSIs, are injuries or "traumas" resulting from the combination of poorly designed tasks and repeated use of the hand, wrist, arm, or leg.

According to the Bureau of Labor Statistics, there are over 300,000 disorders associated with repeated trauma. The National Council on Compensation Insurance reported that the average worker compensation claim in 1994 was $12,617.

The type and degree of CTDs vary widely. Some appear within weeks or months of beginning a new job. Others may take years before becoming a problem. When a CTD will appear depends on each individual - how often the task is performed and how susceptible the person is to a trauma.

Typically, CTDs cause damage to nerves, joints, and muscles. Some injuries and illnesses result from the shock, impact, and vibration caused by poorly designed hand tools. Other injuries occur when overworked muscles and inflamed tendons swell, reducing blood flow. Sometimes, minor damage can heal overnight. However, when workers perform the same stress-producing job tasks for months or years on end, their bodies may not recover as quickly or completely.

OSHA and Ergonomics

In 2000, OSHA issued its final ergonomics rule requiring employers to protect workers from repetitive strain injuries in the workplace. If passed by Congress, this program will require employers to establish ergonomics programs to prevent work-related musculoskeletal disorders and cumulative trauma disorders.

OSHA reports that WMSDs, such as back injuries and carpal tunnel syndrome, occur most frequently and are the most preventable workplace injuries in the United States. Under the proposed ergonomics program, OSHA hopes to prevent at least one-half of the 600,000 RSIs that result in lost work time each year. The agency estimates that business will save $9 billion per year in worker's compensation and other related costs should this rule be put into place.

◆ Essential Questions: Ergonomics ◆

1. What factors can result in work-related musculoskeletal disorders?
2. What are examples of changes related to ergonomics that can reduce work-related musculoskeletal disorders?
3. What are causes of cumulative trauma disorders? What physical damage can CTDs cause?
4. Why did OSHA issue an ergonomics rule in 2000? If passed, how would this rule help businesses?

HEALTH POLICIES

Communicable Diseases

Communicable diseases are a major concern in health care facilities. ***Communicable diseases*** are illnesses that can be easily passed from one person to another. Preventing cross-infection from patients to employees, employees to patients, and patients or employees to visitors is an ongoing concern.

HIV/AIDS. AIDS stands for ***acquired immunodeficiency syndrome***. It is a disease caused by a virus called the ***human immunodeficiency virus (HIV)***. When a person is infected with HIV, his or her immune system is weakened by the virus. The immune system is responsible for fighting off infections and other diseases. A healthy immune system is able to handle many of the infections that cause problems or may be life-threatening for people with AIDS.

The ways in which HIV can be transmitted have been clearly identified. Unfortunately, false information that is not supported by scientific findings continues to be shared widely through the Internet or popular press. According to a Center for Disease Control (CDC) fact sheet, HIV is spread by sexual contact with an infected person or by sharing needles or syringes (primarily for drug injection) with someone who is infected. It is also possible to contract HIV/AIDS through transfusions of infected blood or blood clotting factors. However, this is very rarely the case, especially in countries where blood is screened for HIV antibodies, such as in the United States. Some people fear that HIV might be transmitted in other ways. However, no scientific evidence supporting these fears has been found.

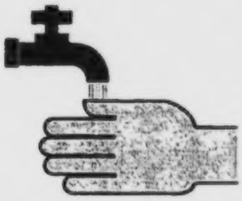
In the health care setting, workers have been infected with HIV after being stuck with needles containing HIV-infected blood or after infected blood gets into a worker's open cut or a mucous membrane, such as the eyes or inside of the nose. According to studies of health care personnel exposed to HIV-infected blood, the average risk for HIV infection has been estimated to be 0.3%.

Workplace risks from AIDS are minimal for housekeeping and maintenance employees who have limited contact with patients and their environment, such as beds, bathrooms, food trays, and medical equipment. However, understanding and practicing proper infection-preventing procedures can help reduce the fear of AIDS.

Realistically, housekeeping and maintenance personnel are more likely to be at risk for falls, electric shock, or asbestos than from AIDS. Still, institutional maintenance workers need to be proactive when it comes to protecting themselves from HIV/AIDS. The CDC recommends that all blood and body fluids (mucous, vomit, urine, or feces) from an individual should be considered infectious, because every individual is a potential AIDS virus carrier. In fact, those persons with undiagnosed AIDS represent the greatest risk of transmitting the disease to others because proper precautions may not be taken.

The Center for Disease Control and Prevention recommends that employees who may be at risk for contracting HIV/AIDS take the following precautions:

- Always wear gloves during cleaning procedures.
- Wash hands and other parts of the body immediately after contact with blood or other body fluids. Appropriately disinfect surfaces soiled with blood.



- Handle needles and other sharp instruments according to recommendations for health care settings. Dispose of needles in puncture-proof containers.

Hepatitis B. ***Hepatitis B (HBV)*** is a serious disease that often results in death due to cirrhosis (scarring) of the liver and liver cancer. HBV is spread through sexual contact with an infected person, sharing needles used for drug injection, being stuck with infected needles while on the job, or from an infected mother to her baby during birth. Persons at risk for HBV infection might also be at risk for infection with HIV or hepatitis C virus.

About 30 percent of persons infected with HBV have no signs or symptoms and may be unaware that they have contracted the virus. Like HIV, the hepatitis B infection poses an occupational hazard to all workers who come into contact with blood or body fluids from patients infected with the virus.

Institutional maintenance employees, and other at-risk workers, can prevent infection through a hepatitis B vaccine. Use of hepatitis B vaccines is strongly endorsed by the medical, scientific, and public health communities as a safe and effective way to prevent disease and death.

Hepatitis C. ***Hepatitis C (HCV)*** is a liver disease caused by the hepatitis C virus, which is found in the blood of persons who have this disease. HCV is serious for some persons but not for others. Most persons who get hepatitis C carry the virus for the rest of their lives. Most of these persons have some liver damage, but many do not feel sick from the disease. Some persons with liver damage due to HCV may develop cirrhosis of the liver and liver failure, which may take years to develop.

Like hepatitis B and HIV, the hepatitis C virus is spread by contact with blood of an infected person and by sharing needles. Health care workers and other at-risk employees should be vaccinated against hepatitis B as many people who are at risk for hepatitis C are also at risk for HBV. There is no vaccine available to prevent hepatitis C. Ultimately, the same preventive procedures that are appropriate for HIV, AIDS, and HBV are also appropriate when dealing with a hepatitis C patient. Practicing infection control is the key to protection.

Biological Hazards

OSHA Recommendations. Bloodborne pathogens like HIV, hepatitis B, and hepatitis C viruses are considered biological hazards. OSHA recommends that employers evaluate routine tasks and procedures that involve exposure to blood or other potentially infectious materials, identify workers performing such tasks, and use a number of methods to reduce the risks. One method used to reduce risk is to observe universal precautions developed by the Center for Disease Control (CDC).

In health care facilities, universal precaution procedures may be used for cleaning patient rooms. Universal precautions assume that blood and certain body fluids of all patients be considered potentially infectious for HIV, hepatitis B virus, hepatitis C virus, and other bloodborne pathogens (pathogens are agents that carry the disease, such as bacterium or viruses). Using universal precautions, each room is cleaned as though it were potentially dangerous, and gloves are worn at all times during cleaning. However gloves are not a substitute for thorough and frequent handwashing. If handwashing facilities are not available, individuals should rinse the hands with alcohol. Other risk-reducing methods include the following:

- Precautions should be taken to prevent wounds and protect open wounds.
- Gowns are required when there is a danger that employee clothing might become soiled with blood or body fluids.
- Objects that are likely to be contaminated with infectious material should be placed in a puncture-proof bag. Bags should be clearly labeled to designate contaminated articles or infectious waste.

DANGER
INFECTIOUS WASTE

- Used needles and syringes should be placed in a labeled, puncture-resistant container dedicated solely for this disposal purpose.
- Obviously contaminated linen should be placed in a laundry bag in the infected area. This linen should be marked and not be sorted before cleaning. Laundry employees should wear gloves while handling this material.
- Obviously contaminated dishes, utensils, and trays should be bagged and labeled. Dishwashers handling these items should use gloves.
- All contaminated dressings and paper tissues should be bagged, labeled, and disposed of in accordance with local regulations.
- Blood spills should be cleaned immediately with detergent and water following recommendations from the CDC.

Environmental Protection Agency. The ***Environmental Protection Agency (EPA)*** has established regulations regarding the use of labels on hazardous products. The purpose of a label is to provide an immediate visual warning about the hazards of the chemical in a container. The warning must be appropriate and specific. "Harmful if inhaled" is not an appropriate label if the chemical causes lung damage. Instead, the label should specifically state "lung damage may occur if inhaled." Lung damage is the hazard, not inhalation. Additional regulations include the following:

- Containers must be labeled with the chemical name, the physical and health hazards, and the name and address of the chemical manufacturer, importer, or other responsible party.
- Unlabeled products should not be allowed in the work area.
- When a chemical is transferred from a labeled container to an unlabeled container, a label must be placed on the unlabeled container. If the unlabeled container is too small to accept a standard label, only the name of the chemical is required to appear on the container.
- Signs or placards containing hazard warnings for stored chemicals must be displayed.
- Labels or signs may be written in more than one language, but they must appear in English.
- When chemicals are mixed, the resulting mixture must be properly labeled on the container.

Drug Tests

An increasing number of employers, especially those whose businesses entail hazardous activity or use of hazardous materials, are requiring that employees undergo drug testing. Most drug testing is done via urinalysis or through hair samples. However, some larger businesses are including blood plasma testing.

When being tested for drugs, employees are required to sign consent forms that authorize the testing as well as the release of the results. Notice must be given that drug testing will take place under specified circumstances. Employees do not have to be told when the testing will be done. If an employee is taking any medication, this should be recorded before testing begins. The privacy and dignity of workers must be respected during any search or screening, and the results must be kept confidential with access on a need-to-know basis only.

A positive drug test establishes that a person has recently used the detected drug. However, a positive drug test does not prove that a person took drugs on company premises or during working hours. Except for alcohol use, drug tests do not establish impairment (the ability to perform on the job). The detection of a drug may constitute an unacceptable risk for an industry in terms of compromised workplace and public safety, decreased productivity, increased absenteeism and medical costs, and poor product quality. If a company's policy prohibits the presence of illicit substances in an employee's system while on the job, a confirmed positive drug test is a violation of company policy and is cause for immediate dismissal.

Companies cannot discriminate against recovering alcoholics or addicts. The law requires employers to make reasonable accommodations, such as changing minor job tasks or allowing the employee time off for rehabilitative treatment. Any denial of employment must be based on job-related factors such as the following:

- Current drug or alcohol problem that is not under control
- Job duties that present a potential hazard to customers or coworkers
- Inability to perform the important duties of the job

Smoking

The Surgeon General of the United States has stated that smoking is a greater cause of death and disability than the workplace environment and that the health of nonsmokers is threatened by passive smoke. Smokers are at risk of developing lung cancer and heart disease. Nonsmokers who breathe passive smoke are also at risk. In addition, many individuals have allergic reactions to cigarette smoke. Employers face potential liability if they do not take all reasonable steps to protect their employees. Therefore, many companies have developed smoking policies.

Some companies allow smoking in certain areas of buildings, while others do not allow smoking at all. Many times, smoking is not allowed in computer rooms, in lobby and reception areas, or in areas where customer or public contact occurs. Employers may allow smoking during lunch or breaks, they may segregate smokers and nonsmokers, or they may install more effective ventilation systems.

Potential employees should inquire about the smoking policy of the establishment. It is important to adhere to smoking policies since failure to do so may result in dismissal.

◆ ***Essential Questions: Health Policies*** ◆

1. What are the chances that an institutional maintenance worker will contract AIDS while on the job?
2. What are some ways employees can be proactive when it comes to protecting themselves from HIV/AIDS?
3. In what ways can the hepatitis B virus be transmitted?
4. What are some universal precaution procedures developed by the Center for Disease Control that are used in health care facilities?
5. Other than the universal precaution procedures, what are some methods for reducing the risks of biological hazards?
6. Why does the Environmental Protection Agency require the use of labels on hazardous products?
7. Why do employers require employees to take drug tests?
8. For what reasons can a recovering alcoholic or addict be denied employment?
9. How can employers protect employees from the dangers of smoking?

EMERGENCY PLANNING

Fires

Fire prevention and the protection of guests, patients, or clients in the event of fire are major concerns of institution managers. It is important to train employees in the early identification of possible fire hazards, prompt response when fire is discovered, and calm reaction during perilous conditions. Hospitals regularly schedule disaster-response events in order to practice required emergency procedures. Hotels, schools, and manufacturing plants often conduct fire drills or other emergency drills. Office buildings are sometimes not as likely to organize fire drills, but emergency procedures should be posted and exits should be clearly marked.

The most common elements of fire are heat, oxygen, and fuel. When these elements are brought together in proper amounts, a fire can start. A fire can be prevented or extinguished by removing any one of the three elements. ***Fuel*** is any material that will burn. Storage of any useless material, such as rags, trash, papers, wood, or leftover flammable liquids, should be avoided. Storing materials under stairs, in attics, and in basements keeps them not only out of sight but also out of mind until a fire starts. Regular and proper disposal of waste products is basic to good housekeeping and effective fire prevention. A clean building is a fire-safe building.

FIRE PREVENTION
EDUCATION

Flammable chemicals can cause a fire to develop in a matter of seconds. ***Flammable chemicals*** are liquid or powdered products that can burst into flames upon combination with air, liquid, another chemical, or an electrical spark. Cleaning fluids, floor finish removers, and oils are common housekeeping products that can be deadly if not used or stored correctly.

Fires may start in rubbish piles, boxes of rags, or oily dust cloths or mops. These fires are caused by spontaneous ignition. ***Spontaneous ignition*** occurs when the heat in a pile of rags or oily dust cloths rises to a temperature at which the materials ignite and burst into flame. Combustible items should be stored in metal, airtight containers. Observing the following safety procedures can prevent spontaneous ignition fires:

- Clean housekeeping supplies and equipment after use.
- Leave at least five feet between stored items and sprinkler heads to allow the sprinklers to work properly.
- Do not store materials in stairwells. Pick up any debris left in stairwells.

When fire, smoke, or a suspicious or noxious odor is detected, employees should do as follows:

- Call the housekeeping office or security immediately to report the problem. Do not call the front desk unless that is the policy of the institution.
- Touch the outside surface of any room or closet if an odor or smoke is present. If the door feels hot to the touch, do not open it.
- Avoid inhaling smoke or odors. The more pleasant the odor, the more likely that it is harmful.
- Use fire extinguishers to put out small fires or to control larger fires. Be familiar with the locations of exits in case a fire cannot be controlled.

Evacuation procedures should be practiced by employees. Employees should be trained to calmly direct patients, guests, and visitors to safety. Smoke and panic, rather than fire, are more likely to cause death.

Smoke does not mean that a fire is out of control. When smoke is detected, an individual should drop to the floor and crawl quickly to the nearest exit. Since smoke may obscure exit signs, people should be aware of exits as they enter a building.

Panic often affects people who are in frightening and uncertain situations. People feel a sense of terror that is easily transmitted to others. Panicked people often react in ways that are unsafe for themselves and others. An informed employee who remains calm and assumes control can greatly affect the outcome of a hazardous situation.

Good housekeeping procedures such as the following are important in preventing fires:

- Collect and dispose of all debris and trash daily.
- Use metal waste cans that meet OSHA standards.
- Inspect the premises daily to discover and eliminate any poor housekeeping practices.
- Plan adequate storage space for all persons using the facility.
- Insist that all persons using the premises employ good housekeeping practices.

Periodic inspections of institution premises ensure the safeness of the building at all times. Housekeeping staff and supervisors should make daily and weekly inspections, and hazardous situations and needed repairs should be reported immediately. A team composed of the building engineer, fire marshal, insurance representative, executive housekeeper, and/or environmental services should make annual inspections of the premises.

Classification of Fires. When a fire starts, immediate action should be taken to extinguish it. The proper method for extinguishing a fire depends upon the type or class of fire. Classification of fires is based primarily on the type of material that is burning. Fires can be classified into four categories as illustrated in Table 8.4.

Classification of Fires

Class A	Class B
Occurs in ordinary combustibles, such as wood, paper, textiles, and rubbish. The most common type of fire. Requires the cooling and soaking effects of water or solutions containing large percentages of water. The stream of water should be directed at the fire, not at the smoke. A side-to-side motion should be used to wet the entire burning surface. Water should be used only on class A fires. A multipurpose dry chemical can also be used to subdue the flames and slow further combustion by coating the burning materials. Class A fire extinguishers are easily identified by a green triangle containing the letter A.	Involves flammable liquids, such as oils, greases, and gasoline. These liquids burn rapidly and spread quickly. The first step in extinguishing a class B fire is to limit the oxygen on which the fire feeds. Dry chemical, carbon dioxide, or foam extinguishers should be used to smother the flames. Direct the discharge of the extinguisher across the front of the fire using quick side-to-side motions. Carbon dioxide extinguishers should be released at the nearest edge of the fire using slow side-to-side motions. Care should be taken to ensure that the fire is completely extinguished as reflashing may occur. Class B fire extinguishers are identified by a red square containing the letter B.
Class C	**Class D**
Involves electrical equipment and requires extinguishing agents that will not conduct electricity. Foam and water are conductors of electricity and therefore should not be used on this type of fire. When the electrical source is disconnected, class C fires often become class A fires. Dry chemical, carbon dioxide, compressed gas, and vaporizing liquid extinguishers should be used on class C fires. Class C fire extinguishers are identified by a blue circle containing the letter C.	A class D fire occurs in combustible metals. Class D materials supply their own oxygen and can burn under water. Steam explosions can occur if water is applied. Class D fires can be smothered by shoveling or spraying a dry powder on the fire. The dry powder extinguisher puts a barrier around the fire. This barrier allows the fire to burn itself out. Class D fire extinguishers are identified by a star containing the letter D.

Table 8.4

Use of the wrong type of fire extinguisher may not only fail to put out the fire, but it may also cause the fire to spread. Chances of severe injury are increased when the wrong fire extinguisher is used. Many institutions reduce confusion about the type of fire extinguisher needed by supplying multipurpose extinguishers throughout the building. Multipurpose extinguishers may be used on class A, class B, and class C fires. A disadvantage of the multipurpose extinguisher is that it leaves a sticky residue that can be difficult to remove. In addition, the multipurpose extinguisher may not be completely effective in warehouses or storerooms that contain materials that can smolder, such as mattresses. Types of fire extinguishers are compared in Table 8.5.

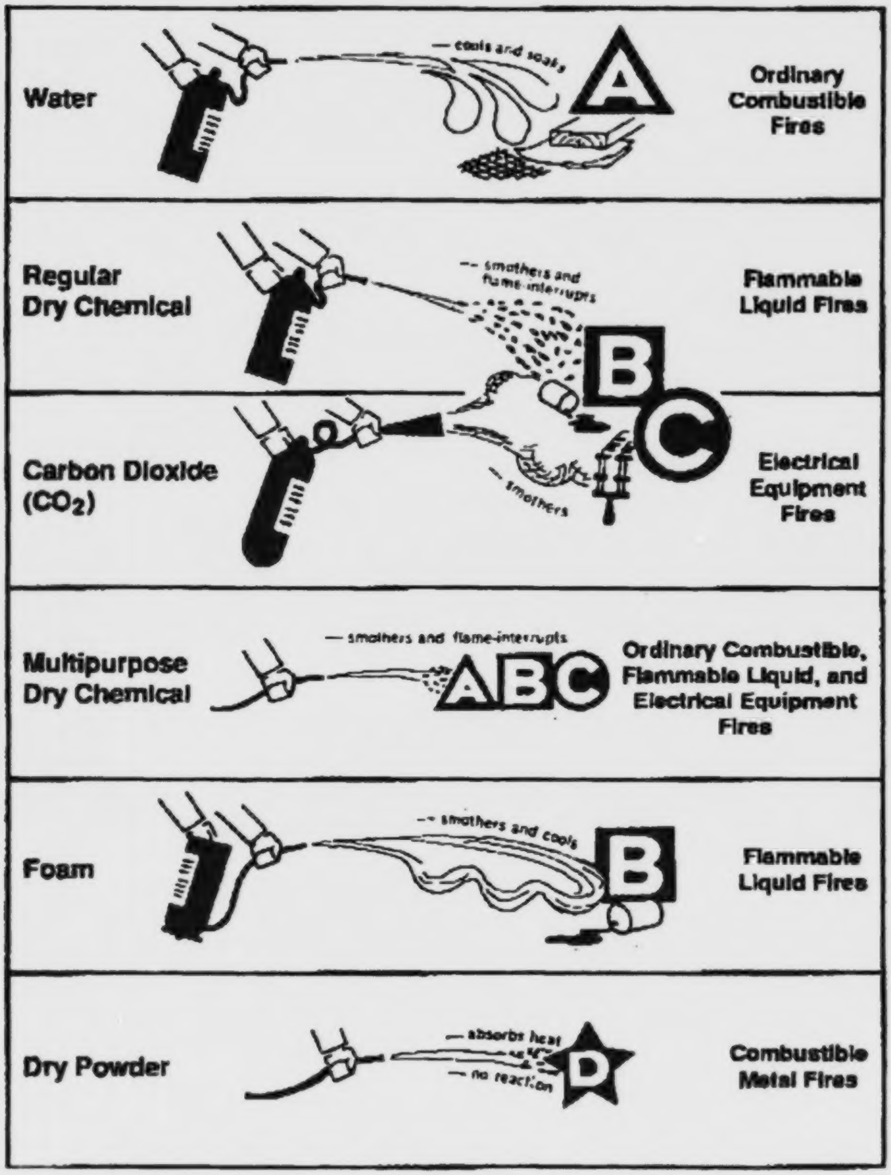

Water
— cools and soaks
A
Ordinary Combustible Fires
Regular Dry Chemical
— smothers and flame-interrupts
B
Flammable Liquid Fires
Carbon Dioxide (CO_2)
— smothers
C
Electrical Equipment Fires
Multipurpose Dry Chemical
— smothers and flame-interrupts
ABC
Ordinary Combustible, Flammable Liquid, and Electrical Equipment Fires
Foam
— smothers and cools
B
Flammable Liquid Fires
Dry Powder
— absorbs heat
— no reaction
D
Combustible Metal Fires

Table 8.5

A safety committee or safety director should choose the most effective type of fire extinguishers for use in an institution. Fire extinguishers should be mounted in prominent positions, and all staff members should be trained in proper fire extinguisher use. When a fire is discovered, the following steps should be observed in sequence:

1. Remove people from the area of the fire.
2. Close doors and windows to eliminate the air supply and contain the fire.
3. Report the fire and sound the fire alarm.
4. Continue to evacuate people as needed.
5. Use the appropriate type of fire extinguisher to smother the fire.
6. Turn off utilities such as gas, oxygen, or electricity.
7. Get out of the way as soon as the fire department arrives.

Disasters

A ***disaster*** is any sudden, unforeseen emergency that may cause personal injury, loss of life, or property damage. Disasters can be classified as natural or man-made. Natural disasters include tornadoes, floods, earthquakes, hurricanes, and snowstorms. Natural disasters may be more common in some areas of the country than in others. Explosions, fires, traffic accidents, bomb threats, shootings, riots, terrorist attacks, and war are examples of man-made disasters. Survival in any disaster depends on an immediate response to procedures that have been previously learned.

In all but the largest organizations, it is the responsibility of the maintenance department to plan emergency procedures. The federal government has excellent resources for planning emergency procedures. The ***Federal Emergency Management Agency (FEMA)*** is the primary responder to disaster in the United States. FEMA can aid in disaster planning for all areas of the nation.

Planning for emergency procedures in the event of disasters should be an ongoing process in any institution. Procedures that outline an institution's response to an emergency situation should be prepared. The goal of an emergency procedure should be for personnel to respond to guests' or patients' safety and health needs. Emergency procedures should outline the steps to take to ensure physical safety and health and methods for confronting and reducing panic and irrational behaviors. In hotels and hospitals, plans should be made for maintaining a partial or full staff in the event scheduled employees are unable to report to the institution. Plans also should be made for staff members to stay overnight or for several nights in order to provide services to guests or patients.

◆ Essential Questions: ◆ Emergency Planning

1. What are the elements of fire?
2. What are examples of flammable chemicals?
3. How can spontaneous ignition be prevented?
4. What should an employee do if fire, smoke, or a suspicious or noxious odor is detected?
5. What are some good housekeeping procedures that are important in preventing fires?
6. What are the four classifications of fires?
7. Upon what factors is each fire classification based?
8. When a fire is discovered, what steps should be observed?
9. Why are emergency procedures developed for use during disasters?
10. What are examples of natural disasters? Man-made disasters?

Chapter Highlights

- OSHA recommends that employers:
  - keep the workplace free of hazards,
  - provide a healthy work environment,
  - inform employees of their right to be informed about and trained in the use of hazardous chemical products,
  - complete a material safety data sheet for each hazardous product used in the workplace,
  - provide training according to specific OSHA training requirements, and
  - maintain records showing compliance with OSHA regulations.
- A material safety data sheet (MSDS) contains information concerning chemical identification, hazardous ingredients, physical data, fire and explosion data, health hazards, reactivity data, spill or leak procedures, special protection, and special precautions.
- Communicable diseases, such as HIV/AIDS, hepatitis B, and hepatitis C, can be contracted by direct contact with infected blood. All blood and body fluids should be considered infectious. Specific procedures should be followed when cleaning up potentially infectious spills.
- Observing universal precautions developed by the Center for Disease Control can reduce the risk of contracting a communicable disease. These precautions include wearing gloves when cleaning infected areas, washing hands frequently, using puncture-resistant containers to dispose of needles, and participating in training sessions that provide information on the transmission and control of diseases.
- The Environmental Protection Agency requires that hazardous products be labeled with the chemical name, the physical and health hazards associated with the chemical, and the name and address of the manufacturer, importer, or other responsible party.
- When drug tests are administered, consent forms must be signed, notice that drug testing will take place under specified circumstances must be given, the privacy and dignity of workers must be respected, and the results of the tests must be kept confidential. Employees who test positive for drug use are often dismissed.
- Employers are potentially liable if they do not take reasonable steps to protect employees from the dangers of smoking. Employers can protect employees by designating areas where smoking is permitted, by allowing smoking only during breaks, or by installing more effective ventilation systems.
- Fires can be classified into four categories as follows:
  - Class A fires occur in materials such as wood, paper, textiles, and rubbish.
  - Class B fires involve flammable liquids such as oils, greases, and gasoline.
  - Class C fires involve electrical equipment.
  - Class D fires occur in combustible metals.
- Emergency procedures are developed to respond to natural and man-made disasters. The primary goal of any emergency procedure should be to respond to guests' or patients' safety and health needs.

Chapter 9

Safety and Sanitary Procedures

Chapter Focus

The following Essential Knowledge and Skills are discussed in this chapter:

4A Evaluate potential safety hazards in the workplace.
4B Practice procedures that contribute to safe working conditions.
4C Apply safety and sanitation procedures when performing assigned tasks.
4D Analyze government regulations impacting safety and sanitation practices in institutional maintenance operations.
5A Demonstrate safe and responsible storage, use, and disposal of materials.
5B Describe environmental issues specific to an assigned workplace.
5C Demonstrate appropriate responses to emergency situations.

Chapter Vocabulary

broad range of kill
cardiopulmonary resuscitation (CPR)
choking
corrosives
disinfectants
first aid
Heimlich maneuver
immobilize
organic solvents
pathogens
personal hygiene
pressure points
protective clothing
shock
stock attendant
third-degree burn
tourniquet

Many times, people ignore preventive measures and safety programs. As a result, accidents occur. Most accidents are caused by carelessness and are avoidable. Accidents happen when individuals are irresponsible or do not care about their work. Institutional maintenance personnel are responsible not only for their own safety but also for the safety of others. For employers, the benefits of reducing accidents include lower insurance premiums, maximized productivity, and a lower absentee rate resulting in higher morale among coworkers.

Individuals can prevent accidents by following proper procedures and acting maturely when using equipment and supplies. Irresponsible behavior leads to many accidents. Irresponsible behavior includes the following:

- Attempting tasks without proper training
- Removing safety devices from equipment
- Operating machinery at unsafe speeds
- Using defective equipment
- Using equipment improperly
- Failing to use safety devices such as goggles and gloves

Unsafe physical conditions also contribute to the accident rate in an institution. Some examples of unsafe physical conditions include:

- Inadequate safety guards on machinery
- Defective equipment
- Hazardous processes or procedures
- Inadequate lighting
- Inadequate ventilation
- Improper dress

SAFE USE AND CARE OF CLEANING EQUIPMENT

Institutional maintenance personnel contribute to safety in the work environment by paying attention to the task at hand and following safety procedures when operating and handling equipment. The maintenance staff must be familiar with a variety of devices, machines, and work procedures. For every job, it is important to use the correct tools and equipment. For example, a knife blade should not be used as a screwdriver. Incorrect usage of tools can result in personal injury as well as damage to equipment.

Electrical Equipment

Careless use of electrical equipment can result in electrical shock or fire. Therefore, safeguards such as the following should always be observed when working with electrical equipment:

- Position switches on equipment in the *off* position before plugging equipment into outlets.
- Plug cords into equipment first and then into outlets.
- Make sure all attachments, such as brushes and attachment plates, are in place before turning on electrical equipment.
- Select extension cords that are the correct size for the equipment being used.
- Use only extension cords that bear the underwriter's seal of approval.
- Replace worn extension cords and plugs.
- Do not overload extension cords or outlets.
- Wear rubber-soled shoes when operating electrical equipment on damp floors.
- Ground all electrical equipment properly.
- Disconnect electrical equipment when it is not in use or when it is being repaired or serviced.
- Make sure hands are dry before connecting or disconnecting electrical equipment.
- Remove electrical cords from wall outlets before removing from equipment.
- Grasp the plug rather than the cord to remove an electrical cord from an outlet.

- Report damaged equipment or unusual noises immediately.

General Safety Guidelines

Maintenance personnel use a variety of cleaning equipment. Proper use and care of cleaning equipment is essential in maintaining a safe work environment. The following guidelines should be observed when using and caring for cleaning equipment:

- Store sharp objects, such as pins, scissors, and knives, in a safe place.
- Do not wear loose clothing or dangling jewelry when working near moving machinery.
- Keep long hair pulled back and away from moving parts when operating machinery.
- Keep equipment storage areas neat and in good order. Return equipment to its proper place.
- Keep aisles and traffic lanes clear of trash and electrical cords.
- Carry equipment such as mops and brooms upright to avoid striking individuals with the handles.
- Apply force away from the body when using scrapers, knives, or other sharp tools.
- Keep greasy or oily cloths and dust mop heads in closed metal containers.
- Check to see that cigarette butts are not caught in broom bristles before storing brooms in supply areas. Cigarettes caught in the bristles of a broom can cause a fire.
- Keep ladders in good repair and use them properly. Make sure ladder footing is secure.

Protective Clothing

Many times, institutional maintenance personnel are required to wear protective clothing. ***Protective clothing*** is outerwear that protects individuals from such hazards as burns, harmful fumes, cuts, and electrical shock. Examples of hazards and the type of protective clothing to be worn are listed in Table 9.1.

Types of Protective Clothing	Examples of Hazards
Aprons and Coveralls	Trash removal, use of disinfectants
Canvas Gloves	Abrasions, blisters, cuts, dirt
Chemical Resistant Gloves	Acid, pesticides, other hazardous chemicals
Ear Plugs	High frequency sounds
Face Shields	Acids, flying particles, pesticides
Goggles	Acid, ammonia, chemicals handling, pesticides
Hard Hats	Falling objects
Impervious Gloves	Trash removal
Latex Gloves	Solvents, detergents, disinfectants, soaps
Masks	Ammonia, disinfectants, dust, pesticides, paint
Nonskid Shoes	Stripping, mopping, and waxing floors
Safety Shoes	Carrying and handling heavy materials which can be dropped, puncture protection
Spectacles with side shields	Flying particles, dust

Table 9.1

◆ Essential Questions: ◆ Safe Use and Care of Cleaning Equipment

1. What benefits are derived when accidents are reduced?
2. What types of irresponsible behavior lead to accidents?
3. What types of unsafe physical conditions lead to accidents?
4. What are some safeguards to follow when working with electrical equipment?
5. How can institutional maintenance personnel operate and care for equipment safely?
6. What types of clothing can be worn to protect individuals from hazards in the workplace?

SAFE USE AND STORAGE OF CLEANING SUPPLIES

Safety Guidelines

Institutional maintenance personnel use a variety of cleaning supplies. Cleaning supplies include glass cleaners, floor finishes, toilet bowl cleaners, wood polishes, and all-purpose cleaners. It is important for maintenance staff to understand the intended use of each type of cleaner. Individuals should carefully read the labels on cleaning products and follow instructions. Dangerous situations can occur when cleaning supplies are used incorrectly. For example, mixing bleach and ammonia creates a deadly gas. In addition, cleaning products can be flammable, poisonous, or corrosive. The following safety guidelines should be observed when using cleaning supplies:

- Avoid splashing cleaning products in eyes, on skin, or on clothes.
- Close drawers and doors carefully to avoid knocking over cleaning products.
- Dispose of unused portions of cleaning products properly. Check the instructions for proper disposal techniques.
- Do not use cleaning products for purposes other than those for which they were designed.
- Close containers properly if work is interrupted.
- Destroy all unlabeled containers.
- Avoid the use of flammable cleaning compounds.
- Pour and use solvents in a well-ventilated area.
- Keep aerosol containers away from heat or unusually warm places.
- Do not incinerate aerosol containers as the containers may explode.
- Keep all containers tightly closed.
- Do not put a product into a differently labeled container.

Storage Guidelines

It is important to properly store cleaning supplies. Cleaning supplies should be clearly labeled and space should be assigned for each item. In addition, labels, hazard warnings, and emergency procedures should be posted in the storage area. Maintenance employees save time when cleaning supplies are easily located.

Properly stored cleaning supplies also allow inventory control. Many times, supplies are under the control of a stock attendant. A ***stock attendant*** orders supplies, stocks the storage room, and distributes supplies to maintenance or housekeeping personnel. The stock attendant can prevent waste of supplies by monitoring the amount of supplies used. When use of supplies is monitored, costs for supplies usually goes down and business profits go up.

◆ Essential Questions: ◆ Safe Use and Storage of Cleaning Supplies

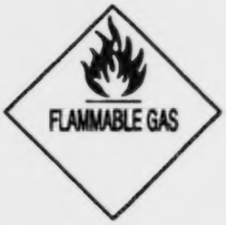
1. What guidelines should be followed when using cleaning supplies?

2. What guidelines should be followed to properly store cleaning supplies?

SAFE USE OF HAZARDOUS SUBSTANCES

Almost all chemical products used in institutional maintenance are defined by federal law as hazardous. A hazardous substance is any chemical or material which can harm the body. Harm can occur either at the time of exposure or later. Hazardous substances may be solids, liquids, gases, dusts, vapors, or fumes.

Employers must provide a healthy work environment. This includes informing employees of any hazardous substance used, manufactured, or stored in the workplace. Training must be provided for all personnel when any new hazard is introduced into the workplace or when any updated information is received about chemicals already in use. Employees should be informed in the proper procedures for handling, storing, and disposing of hazardous substances. Additionally, employers are responsible for providing employees with instructions in the event of chemical-related emergencies and first aid administration.



Handling Hazardous Substances

When working with a hazardous substance it is important to know how to use it safely. Following are some questions that should be asked prior to using a chemical:

1. Is it dangerous to inhale?
2. Is skin contact dangerous?
3. Is it flammable?
4. Is it reactive?
5. What equipment is recommended for safe handling?
6. What protective equipment is needed for safe handling?

Answers to these questions can be obtained from reading the label on the container, contacting a supervisor or safety inspector to answer questions or concerns about medical problems related to chemicals, or reading the Material Safety Data Sheet (MSDS). The material safety data sheet describes the substance, its potential health and safety hazards, and safe work procedures. Federal law requires all manufacturers and sellers of hazardous materials to provide employers with a MSDS. Further, the employers are required to make this information available to all potentially exposed employees.

Safe handling of chemicals requires using the recommended protective clothing and equipment for the job. Protective clothing and equipment can include eye protection such as safety glasses and goggles, gloves to protect the hands, safety shoes, and various types of respirators. Additional guidelines include the following:

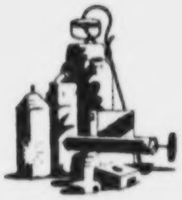
- Always wash hands thoroughly after using chemicals and before eating.
- Do not carry food into an area where chemicals are present.
- Never eat around hazardous substances.
- Never store food near chemicals. Fumes or vapors in the room can contaminate food.

- Keep the workplace clean and uncluttered.
- Be aware of warning signs. These may include *Caution, Danger, Restricted Area, Do Not Enter*, or *Eye Protection Required*.
- Know emergency procedures.

Storing Hazardous Substances

Two common types of hazardous substances used in institutional maintenance are organic solvents and corrosives. ***Organic solvents***, the most common types of industrial chemicals, are used to dissolve oils, greases, and resins. Some solvents are flammable, some can explode, and some can react with other substances or heat and create a different hazardous material. Organic solvents are found in the following products:

- Paints
- Lacquers
- Varnishes
- Paint removers
- Adhesives
- Pesticides
- Floor polishes
- Waxes



Corrosives are harsh substances, either acid or base, that will destroy living tissue by chemical action. Corrosives can be either liquid or solid. They are found in cleaning agents used on metal, clothing, dishes, and drains. Usually, corrosives are not flammable, but they can react with each other and with other chemicals to produce fire and explosion.

When storing chemicals, it is important to follow instructions and recommendations printed on the label. When in doubt about the proper storage procedures, always check with a supervisor or safety inspector. Some general guidelines to keep in mind when storing chemicals include the following:

- Make sure chemicals are labeled with the name and major hazards.
- Storage areas should be clearly marked with hazard classifications such as *"acids"* and *"flammables."*
- Separate chemicals according to their hazard classification. Some materials will react with each other if they are stored together, resulting in toxic vapors, fire, or explosion. For example, acids stored near oils can cause fire.
- Storage areas and cabinets should be well ventilated.
- Store chemicals away from direct sunlight and heat. Some chemicals are light or heat sensitive and may break down into other chemicals, build up pressure in the container, or pose a fire hazard.
- Date all chemical containers when they arrive. Some chemicals become unstable three to six months after opening and may become explosive.
- Never store flammables near any potential source of spark or flame.

Disposing of Hazardous Substances

Safe handling of hazardous substances also includes proper disposal procedures. The Occupational Safety and Health Act requires that information regarding safe disposal procedures for chemicals be included in the material safety data sheet. Additionally, the Environmental Protection Agency (EPA) provides guidelines for the proper disposal of chemicals such as pesticides. General guidelines for disposal of hazardous substances include the following:

- Do not pour chemicals down drains.
- Do not allow chemicals to evaporate as a means of disposal.
- Place chemicals in containers compatible with the material.
- Ensure that containers used for disposal have tight fitting lids.
- Properly label all waste products.

Emergencies and First Aid

In addition to knowing the proper procedures for the handling, storing, and disposing of hazardous substances, it is important that employers train employees in emergency and first aid policies. Although each institution will have its own particular guidelines for addressing chemical emergencies, there are common procedures that maintenance employees should know and practice. Some of these procedures are listed:

- Always be ready for an emergency.
- Be prepared to respond quickly to an emergency.
- Know the location of the nearest emergency and first aid equipment, including eye washes and emergency showers.
- Know emergency phone numbers and the location of medical help. This information should be posted in the workplace.
- Be able to tell emergency personnel the exact name of the chemical(s) involved.
- Be able to provide emergency personnel with an MSDS for the chemical involved.

Other emergency concerns are fire, unconsciousness, vapors, eye contact, skin contact, and spills. These emergencies are each treated in a different manner. In these situations, institutional policies and procedures should be known and followed. Some general guidelines for specific emergencies are listed in Table 9.2.

◆ Essential Questions: ◆ Safe Use of Hazardous Substances

1. What are some ways in which employers provide a healthy work environment?
2. What questions should be asked prior to handling a hazardous substance?
3. In addition to using the recommended protective clothing and equipment for the job, what other safety guidelines should be followed when handling hazardous substances?
4. In what products may organic solvents be found?
5. In what products may corrosives be found?
6. What general guidelines should be followed when storing chemicals?
7. What general guidelines should be followed when disposing of hazardous substances?
8. In a chemical emergency, what are some common procedures that institutional maintenance employees should know and practice?
9. What are the general guidelines for treating such emergencies as fire? unconsciousness? vapors? eye contact? skin contact? spills?

General Guidelines for Chemical Emergencies	
Emergency	**Guidelines**
Fire	Never try to put out a fire unless it is known what substance is involved and the correct method for extinguishing the type of fire. Some materials become toxic when burned. It is best to evacuate the area and get professional help.
Unconsciousness	Before entering an area to help an unconscious person, make certain that there is no present danger from hazardous substances or inadequate oxygen. Respirators and lifelines may be needed, and should be used only by trained individuals. Many respirators provide protection for particular hazardous substances only and may not be adequate for all situations. If it is possible to enter the area safely, remove the victim to fresh air immediately. Give artificial respiration, if appropriate, and get medical attention. If the victim's eyes or skin are contaminated, flush with running water only if it is known that the contaminant is not water reactive. Remove any contaminated clothing.
Vapors	When working with chemicals, be aware of the warning symptoms due to overexposure to hazardous vapors. Get fresh air immediately if a strong odor is detected or if there is a burning or irritation in the nose, throat, or lungs. Other symptoms include feeling weak, dizzy, or nauseous. Close containers, open windows, turn on vented hoods or other ventilation. If these measures do not help, leave the area and contact the supervisor.
Eye Contact	Flush eyes immediately with running water unless the chemical is water reactive. Use an emergency shower or any other available source of water such as an eye-wash, sink, fountain, or hose. Have the injured person hold eyelids apart and roll the eyeballs to ensure that eyes are well rinsed. Continue flushing for at least 15 minutes. Contact lenses should always be removed before flushing. Get medical attention immediately. Do not use ointments or salves, which may be dangerous.
Skin Contact	Drench the clothing and skin thoroughly with plenty of water. Use any available source of water — a faucet, fountain, or hose. Remove contaminated clothing while drenching it, and continue to flush skin with water for at least 15 minutes. Get medical attention immediately.
Spills	Follow company policies for contacting Spill or Emergency Response Teams. Keep people away from the spill until the emergency crew arrives. In the case of a large solvent or corrosive spill, evacuate the immediate area, but do not leave the material unattended. With solvents, remove sources of ignition (flames). Do not flush a spill with water.

Table 9.2

ACCIDENT PREVENTION

By maintaining safety standards, institutional maintenance personnel can prevent most accidents. Employees can prevent accidents by observing safety rules and procedures. Individuals can help also by identifying and reporting such hazards as broken glass, slippery floors, and defective tools. In addition, employees should know the location and proper use of emergency equipment and be familiar with emergency procedures and escape routes. Employees should also be trained in basic first aid procedures and know the location of a first aid kit.

Employers are responsible for the safety of employees as well as for the safety of other individuals such as customers, students, guests, and patients. Therefore, it is important for employers to help in the prevention of accidents. Employers can decrease the numbers of workplace accidents by providing a safe environment. For example, employers can do the following:

- Establish safety rules and procedures.
- Provide employees with safety training.
- Enforce safety rules and regulations.
- Provide safety equipment such as fire extinguishers and first aid kits.

Both employers and employees can help prevent accidents by planning ahead, using caution, being aware, and paying attention. General guidelines for preventing accidents in an institution are included in Table 9.3.

Examples of accidents that commonly occur in institutions are listed in Table 9.4. In addition, causes of accidents and accident prevention methods are also included.

Guidelines for Preventing Accidents

- Post warning signs to alert others of unsafe conditions.
- Identify wet or slippery floors with appropriate signs.
- Report defective equipment.
- Observe safety signs and notices.
- Turn on lights before entering a dark room.
- Avoid touching waste from wastebaskets. Use the bottom of the wastebasket to push waste down into the trash container.
- Empty ashtrays only into metal containers.
- Do not move heavy objects without assistance.
- Store heavy objects on lower shelves.
- Secure small rugs to the floor if there is no nonskid backing in place.
- Keep floors clear of trash and foreign objects.
- Use the handle or push plate to slowly open swinging doors.

Table 9.3

Falls

Causes

- objects in corridors or on stairs
- equipment in passageways
- electrical cords in traffic lanes
- trash or dirt left on floor
- wet floors
- improper maintenance of floors
- brooms and mops in traffic lanes
- steady or broken ladders

Preventive Measures

- Clean up spills, leaks, and tracked-in water promptly.
- Report worn places or holes in pavement, flooring, or carpet.
- Clean floors regularly.
- Keep corridors and passageways clean and clear of stored items.
- Be sure that mats and runners lie flat.
- Report loose handrails and bad stair treads.

Burns and Shocks

Causes

- improperly grounded electrical equipment
- cleaning or repairing electrical equipment that is connected to an outlet
- operating electrical equipment in or near water
- handling electrical equipment with wet hands
- cleaning light fixtures or changing bulbs while switch is on
- damaged or frayed electrical cords
- damaged plugs and outlets

Preventive Measures

- Check electrical cords and outlets and repair if necessary.
- Grasp the plug to disconnect an electrical cord.
- Dry hands before handling electrical equipment.
- Unplug electrical equipment before cleaning or repairing.
- Report defective electrical equipment.
- Remove electrical cords from outlets before removing from equipment.

Table 9.4 *(continued on page 131)*

Cuts

Causes
- sharp objects in wastebaskets
- rough edges on furniture, doors, metal objects, etc.
- improper storage or use of tools
- broken glass
- steel wool
- unsafe work environment or objects

Preventive Measures
- Do not place hands in wastebaskets.
- Pick up broken glass with a thickly folded damp paper and place in a waste can for metal and glass.
- Carry bags or trash away from the body.
- Repair or replace splintered mop or broom handles.
- Report sharp edges on metal objects or furniture.
- Push scrapers and putty knives away from the body.
- Store tools when not in use.
- Do not try to catch sharp or glass objects that are falling.
- Check the condition of objects and the environment before moving or lifting objects. Look for protruding nails, splinters, jagged edges, objects on floor, etc.

Strains and Sprains

Causes
- lifting objects that are too heavy
- improper carrying and lifting
- improper movement of the body

Preventive Measures
- Push, pull, roll, or slide objects rather than lifting.
- Test weight of objects by lifting one corner.
- Keep the load close to the body when lifting. With the feet apart and knees bent, raise the load gradually and slowly straighten the knees. Keep the back straight.
- Keep the back straight and the load close to the body when setting down objects. Keep the feet apart and bend the knees slowly, while gradually lowering the load.

Table 9.4, cont'd.

◆ Essential Questions: ◆ Accident Prevention

1. How can institutional maintenance employees help in preventing accidents?
2. What responsibilities does an employer have regarding accident prevention?
3. What general guidelines should be followed to prevent accidents?
4. What are examples of common accidents that occur in institutions? How can these accidents be prevented?

FIRST AID

According to the American Red Cross, ***first aid*** is defined as "the immediate and temporary care given to a person who has been injured or who has suddenly become ill." When employees or customers have accidents, they should receive immediate care. The accident must be reported to the supervisor. If necessary, a doctor or ambulance should be called also. Small cuts, burns, or bruises should be cared for immediately.

First aid is used to save lives and prevent further injury. The responsibility for administering first aid may be designated to one trained person on each shift. However, all institutional maintenance employees should be trained in the use of basic first aid procedures since individuals such as coworkers, customers, or guests may have accidents or become ill. Some situations in which first aid is administered include the following:

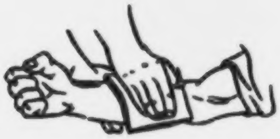
- Preventing severe blood loss
- Maintaining breathing
- Preventing shock

Additionally, individuals applying first aid should understand the basic procedures for treating severe burns, head injuries, neck injuries, back injuries, and choking victims.

Severe Blood Loss

Severe bleeding must be stopped immediately. A doctor or emergency medical team should be called when an individual is bleeding severely. Shock and loss of consciousness may occur during severe bleeding. The first aid method for severe bleeding is to apply direct pressure firmly to the wound with a clean dressing held in place by the hand. This method prevents blood loss without interfering with normal blood circulation.

It is best if the applied dressing is a thick pad of sterile gauze or a folded clean cloth. If these items are not available, choose the cleanest absorbent material available. Avoid absorbent cotton matting because loose fibers will remain in the wound.



The purpose of the dressing is to absorb the blood and permit blood clotting. If necessary, pressure may be applied with the bare hands until a dressing is obtained. Once the dressing is in place, it should not be removed until the bleeding stops. More dressings may need to be added on top of the original one to absorb the blood before it begins to clot.

If possible, raise the injured area above the level of the victim's heart to slow the blood flow to the wound. If bleeding continues, apply direct pressure to the wound while applying pressure against ***pressure points***. NOTE: Before using the methods listed in Table 9.5, maintenance employees should complete training in a first aid course to understand correct procedures to be used.

A ***tourniquet*** is a device used to stop bleeding, such as a bandage twisted around a limb. A tourniquet should only be used in cases of massive bleeding that cannot be controlled using other methods – such as with a severed limb. The decision to apply a tourniquet is a decision to risk loss of an injured person's arm or leg in order to save the person's life. If a tourniquet is used, the care of a doctor is needed immediately.

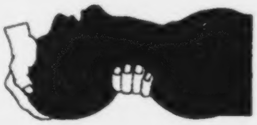
Maintaining Breathing

Immediate action should be taken if a person stops breathing. Permanent brain damage or death can result if breathing does not begin between four to six minutes after the heartbeat has stopped. Breathing can stop for any of the following reasons:

- Obstruction in the air passage
- Swelling due to damage of the air passage following the swallowing of a corrosive substance (such as lye)
- Acute asthma attack
- Lack of oxygen in the air, as in gas poisoning or being locked in an enclosed space
- Suffocation due to a plastic bag or other material blocking the mouth or nostrils
- Electrical shock
- Poisoning
- Drowning

A person who has stopped breathing may be unconscious with no breathing movements of the chest or stomach. The person's lips may be blue, and the pupils will be dilated. To properly restore a person's breathing, institutional maintenance personnel should be trained in the use of ***cardiopulmonary resuscitation*** (***CPR***).

First aid to restore breathing includes the following steps:



1. Begin first aid immediately. Have someone call for a doctor or ambulance as first aid is administered.
2. Check for blockage of the air passage. Use first aid methods appropriate for the age of the ill person. These methods may include back blows and abdominal thrusts.
3. Apply artificial respiration using a method appropriate for the age of the ill person. These methods include mouth to mouth or mouth to mouth/nose respiration.
4. Continue artificial respiration until breathing begins or the task is taken over by medical personnel.
5. Treat the victim for shock.
6. Get medical care, even if breathing has been restored.

Preventing Severe Blood Loss

Wound	Pressure Point
Scalp	Press your thumb against the bone just in front of the ear.
Face	Press your fingers against the hollow spot in the jaw.
Neck	Place your thumb against the back of the neck. Place your fingers on the side of the neck near (not over) the windpipe and press toward your thumb.
Chest or armpit	Press your thumb in the groove behind the collarbone.
Arm	Place your fingers on the inner side of the arm, pressing in the groove between the muscles. Keeping your thumb on the outside of the arm, press toward the bone.
Leg	Place the heel of your hand on the inner thigh at the crease of the groin. Press against the bone.

Table 9.5

Shock

Shock is a serious condition that follows injury or sudden illness. Shock can be fatal. Shock results from a depression of vital body functions. It is a sign that the body is overstressed. In all cases of shock, the blood flow to vital organs is reduced and a person will probably not be able to breathe well. Every victim of injury or illness should be treated for shock, even if symptoms of shock do not appear. The symptoms of shock are as follows:
- Pale or bluish skin color
- Cold, moist skin
- Weak, rapid pulse
- Shallow or deep breathing
- Weakness, dizziness, anxiousness, or restlessness of the victim

The following are steps in the first aid treatment and prevention of shock:
- Keep the person lying flat on the back. In case of nausea or unconsciousness, turn the head to one side. Raise the feet eight to twelve inches — unless doing so might further complicate an injury. If the person has trouble breathing, slightly raise the head and shoulders unless other injuries might make this action unwise.
- Place a blanket over the person to prevent a chill. The purpose is to retain body heat but not add to it. Do not apply a heating pad, a hot water bottle, an electric blanket, or any other heating device.
- Moisten the victim's lips if the injured party is thirsty. Do not give fluids if the person is unconscious, is nauseated, has head or abdominal injures, may require surgery, or if medical help will arrive in less than one hour.
- Get medical help as soon as possible.
- Reassure the person that help is on the way.

Severe Burns

Severe burns may result from fire, electrical shock, scalding liquids, or touching hot objects. Not all burns require medical treatment. However, a doctor must care for third-degree burns. In a ***third-degree burn***, blisters form on the burned area and the skin may be charred.

If a burn is severe, do not chill the burn or submerge the burned area in cold water. These are appropriate techniques for minor burns, but to do so for severe burns may result in shock. Appropriate first aid is to cover the burned areas with loose dry sterile dressing to help prevent infection. Do not touch the burned area. Do not place ointments or antiseptics on the burned area. Treat the person for shock and arrange to take the person to a hospital emergency room immediately.

If a person's clothes are on fire, stop the person from running. Roll the person in a blanket, coat, or on the ground to put out the flames. Do not attempt to remove clothing that is attached to burned skin.

Chemical Burns. If a chemical gets in or near a person's eyes, rinse the eyes immediately with running water for several minutes. Flush each eye in the direction toward the ear, away from the nose. Flushing the eye with water in this manner keeps the chemical in one eye from being flushed toward the other eye. Bandage the person's eyes after flushing. If a chemical is spilled on a person's skin, remove any clothing that has the chemical on it and flush the skin area with running water for several minutes.

Alkaline chemicals, such as drain cleaner and strong cleaning liquids and granules, are common sources of chemical burns. Prompt medical treatment is important for chemical burns, even if they appear to be minor at the time.

Electrical Shock. Contact with a live electrical current may cause burns or unconsciousness. Electrical shock can also cause the breath or the heart to stop. Electrical shock may result in death.

To rescue a person from electrical shock, the contact between the person and the source of shock must be broken. This must be done without allowing anyone to touch the person who is being shocked. Any person who touches the person being shocked also receives the electrical shock.

If the accident involves an electrical cord, the first step is to unplug the cord. If this is not possible or if a cord is not involved, turn off the master switch inside the electrical control box for the building. If neither of these steps are possible, use some material that does not conduct electricity to move the person away from the source of the electrical current. Appropriate materials include a long dry wooden stick or board, rubber, cloth, and rope.

Once the person is free of the electrical current, begin appropriate first aid immediately. If breathing has stopped, give artificial respiration at once. If the heartbeat also has stopped, give cardiopulmonary resuscitation. Treat for burns and shock. Get medical care immediately.

Head, Neck, and Back Injuries

Head injuries may show no immediate symptoms except, perhaps, a bump and bruises. However, head injuries may cause bleeding inside the skull. Bleeding inside the skull can cause brain damage and even death. Symptoms that may occur later include headache, dizziness, drowsiness, blurred vision, vomiting, and unconsciousness.

If a neck or back injury is suspected, do not move the person unless there is danger of explosion, fire, or other life-threatening circumstances. If the injured party must be moved for these reasons, move the person with caution and follow the procedures learned in first aid training. Treat for shock and other injuries. Call for emergency medical care to move the person to the hospital.

In the case of head, neck, or back injuries, the person should always be immobilized. To ***immobilize*** means to hold or fix so that a part of the body cannot move. Immobilize the head in the position found by placing rolled up clothing or blankets around the head and the sides of the neck and shoulders. For back injuries, also immobilize the torso. Since different methods should be used for different types of head injuries, first aid training will help the maintenance staff know the proper actions to take.

Choking

Occasionally, a person may choke on a food or beverage. ***Choking*** occurs when a foreign object lodges in a person's throat and cuts off breathing. When choking occurs, the person cannot speak and may not be able to move. The choking victim may be unable to alert anyone about what is happening. Without help, a choking person can die within a few minutes.

If an employee thinks that someone may be choking, it is important to act quickly and go to the person immediately. If the choking person is coughing forcefully, let them try to cough up the object. A person who is getting enough air to cough is getting enough air to breathe. The employee should stay with the person and encourage the choking victim to continue coughing. However, if the person continues to cough without coughing up the object, an ambulance should be called.

A partially blocked airway can very quickly become completely blocked. A person whose airway is completely blocked cannot speak, cough forcefully, or breathe. Sometimes the person may cough weakly or make high-pitched noises. This indicates the person is not getting enough air to stay alive. Action should be taken at once. While one person is caring for the victim, another person should call for an ambulance.

When someone is choking, the airway must be opened quickly. This is done by giving the victim a series of quick, hard thrusts to the abdomen. These upward thrusts push the abdomen in, putting pressure on the lungs and airway. This forces the air in the lungs to push the object out of the airway. These abdominal thrusts are also referred to as the ***Heimlich maneuver***. A U. S. surgeon, Henry Heimlich, developed this technique as a means to dislodge food or other objects that are blocking the airway in a conscious victim.

The following instructions should be followed in administering abdominal thrusts:

1. Stand behind the victim.
2. Wrap your arms around the victim's waist.
3. Make a fist with one hand and place the thumb side against the middle of the victim's abdomen just above the navel but below the rib cage.
4. Grab your fist with your other hand and give quick, inward and upward thrusts into the abdomen.
5. Repeat these thrusts until the object is forced out or the victim becomes unconscious.

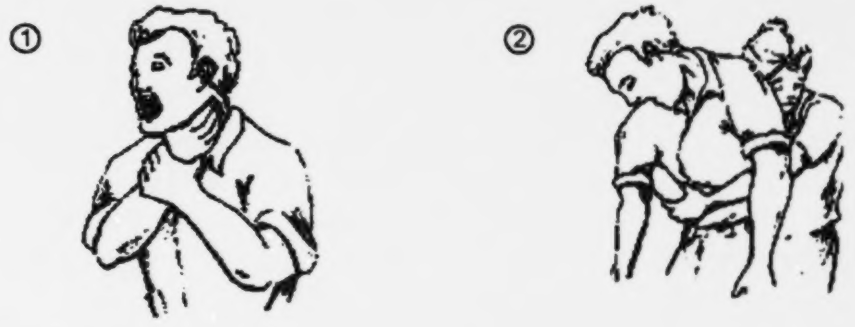
If the choking victim becomes unconscious, the procedures for giving abdominal thrusts to an unconscious victim should be followed:

1. Straddle onto both of the victim's legs.
2. Place the heel of one hand on the middle of the abdomen just above the navel.
3. Place the other hand on top of the first.
4. Point the fingers of both hands directly toward the victim's head.
5. Give quick thrusts toward the head and into the abdomen.
6. After giving five thrusts, lift the victim's lower jaw and tongue with your fingers and thumb.
7. Slide one finger down the inside of the victim's cheek and try to hook the object out. Be careful not to push it further down into the throat.
8. Give the victim two slow breaths.
9. If you still cannot get air into the victim, repeat thrusts, finger sweeps, and breaths. Continue this sequence until the object is removed and you can breathe into the victim.

If a conscious victim is obese or pregnant, chest thrusts should be given instead of abdominal thrusts. Chest thrusts for a conscious victim are like abdominal thrusts, except for the placement of the hands. The following steps are to be followed when giving chest thrusts:

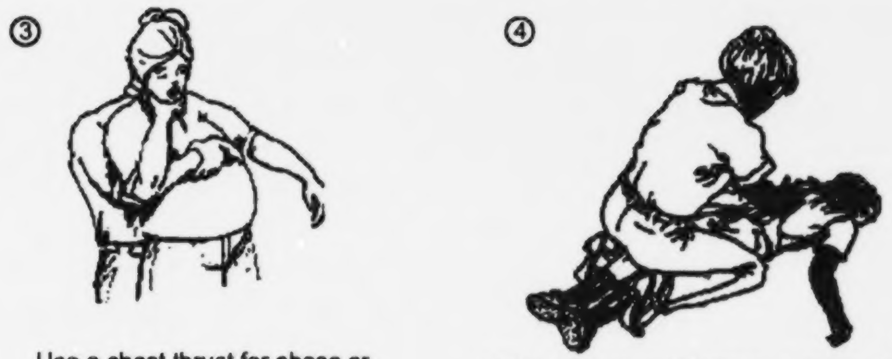
1. Place your fist against the center of the victim's breastbone.
2. Grab your fist with your other hand and give quick thrusts into the chest.
3. To give chest thrusts to an unconscious victim whose airway is blocked, the following procedure should be administered:
   a. Place the heel of one hand on the center of the victim's breastbone.
   b. Place the other hand on top of the first hand.
   c. Give up to five quick thrusts. (Each thrust should push the chest down about 1-1/2 inches.)
   d. Once you are able to get air into the victim, continue to check the victim by feeling for a pulse.
   e. If the victim is not breathing, give rescue breathing.
   f. If the victim does not have a pulse, give CPR.

The Heimlich Maneuver



Determine if the person can speak or cough. If not, proceed to the next step.

Perform an abdominal thrust (Heimlich Maneuver) repeatedly until the foreign body is expelled.



Use a chest thrust for obese or pregnant persons.

If the victim is unconscious, give a quick thrust to the abdomen and toward the head.

Figure 9.1

Abdominal or chest thrusts should be discontinued at once if the object comes out or the victim begins to breathe or cough. Abdominal thrusts and chest thrusts can cause internal injuries. Therefore, whenever thrusts are used to dislodge an object, the victim should be taken to the nearest hospital for follow-up care, even if the victim seems to be breathing without difficulty. Refer to Figure 9.1 for illustration of the Heimlich maneuver.

◆ Essential Questions: ◆ First Aid

1. With what basic first aid procedures should an institutional maintenance employee be familiar?
2. What methods may be used to stop severe blood loss?
3. What steps should be followed to restore breathing?
4. What are the symptoms of shock? What steps should be followed when treating a person in shock?
5. How do treatments for third-degree burns, chemical burns, and electrical shock differ?
6. What procedure should always be followed in the case of a head, neck, or back injury?
7. What are signs that a person is choking?
8. What is the proper procedure for administering the Heimlich maneuver?
9. What is the proper procedure for giving abdominal thrusts to an unconscious victim?
10. When should chest thrusts be used on a conscious victim rather than the Heimlich maneuver? What is the proper procedure for administering chest thrusts?

SANITATION

Since many people use institutional facilities each day, it is likely that rooms, furnishings, and linens will be contaminated with germs that spread communicable diseases. People easily spread germs. Therefore, a working knowledge and understanding of sanitation and disinfection principles helps institutional maintenance employees efficiently kill germs and prevent contamination. The institutional maintenance staff should maintain high standards of cleanliness in order to protect against contamination and prevent liability claims and loss of future business.

Sanitation is the process of making something clean or sterile. Clean or sterile conditions promote hygiene and prevent disease. Proper sanitation also prevents unpleasant odors, the spread of germs, and the invasion of rodents and insects.

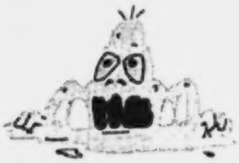
Dirt, dust, and grime are breeding grounds for harmful germs or pathogens. ***Pathogens*** are microorganisms such as bacteria, viruses, and fungi that cause disease. Pathogens grow rapidly and cannot be seen without a microscope. They can be anywhere. A small amount of dirt, dust, or grime can contain billions of pathogens. Pathogens can enter a person's body without suspicion. Their presence is noticed when the body cannot resist the pathogens and begins to show symptoms of disease.

Disinfection

Destroying pathogens can prevent the spread of disease. Disinfection is the process of destroying pathogens such as bacteria and viruses. ***Disinfectants*** are solutions used on inanimate objects to kill disease-causing bacteria and viruses. However, disinfectants are unable to kill all pathogens. The type and strength of the disinfectant used affects the type and number of pathogens killed.

Disinfectants can be harmful to skin and some surfaces. Institutional maintenance employees should carefully follow manufacturers' instructions when using disinfectants. Failure to follow instructions can reduce the effectiveness of a disinfectant, cause personal injuries such as skin irritations, produce harmful fumes, and damage surfaces.

There are a variety of disinfectants from which to choose. Some disinfectants kill only one type of germ, while others kill many types of germs. Disinfectants that kill many types of germs have a ***broad range of kill***. Disinfectants used should be appropriate for the cleaning tasks performed. Chapter 15 addresses specific disinfection techniques that may be used.



Personal Hygiene

Good ***personal hygiene*** - cleanliness – is important in maintaining a sanitary environment. Institutional maintenance employees who practice good hygiene add to the overall cleanliness of an institution. Employees who do not shower or wash their hands spread germs throughout an institution.

Institutional maintenance employees are in contact with many items that other individuals use. For example, housekeepers in hotels touch clean linens, glasses, ice buckets, and other guest items. Germs are spread onto these items if a housekeeper is wearing dirty clothing or has dirty hands or an unwashed body. Guests who use contaminated items are at risk of becoming infected by the housekeeper's germs.

Maintenance employees hired by hospitals are also in contact with items used by others. Hospital employees touch clean linens and supplies used by many people including patients, nurses, and doctors. Most patients in a hospital are ill and have a low resistance to disease. Therefore, it is easy for a patient to contract an infection spread by an employee. In addition, coworkers and other individuals in the hospital are at risk of becoming infected.

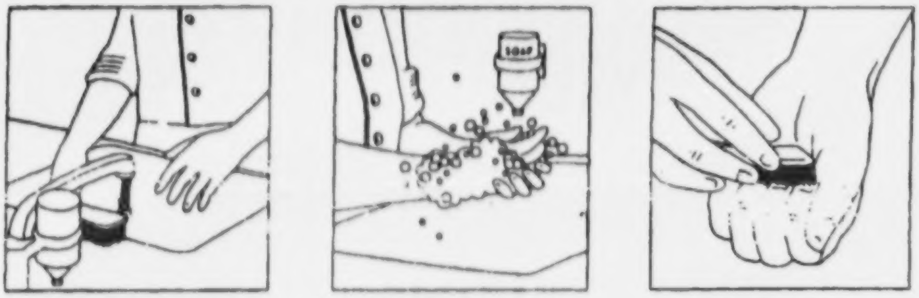
All housekeepers and maintenance staff should be concerned with personal hygiene. Good personal hygiene decreases germs spread to individuals such as students, patients, coworkers, and customers. To effectively clean an area, the employee must be clean. Characteristics of good personal hygiene include the following:

- Take a shower or bath daily.
- Use a deodorant or an antiperspirant daily.
- Keep fingernails clean and neatly trimmed.
- Brush and floss teeth daily.
- Keep hair clean and neat. Hairstyles should conform to any health regulations or policies of the place of employment.
- Wear clean clothes each day.
- Wash hands frequently. See Figure 9.2 for proper hand washing techniques.

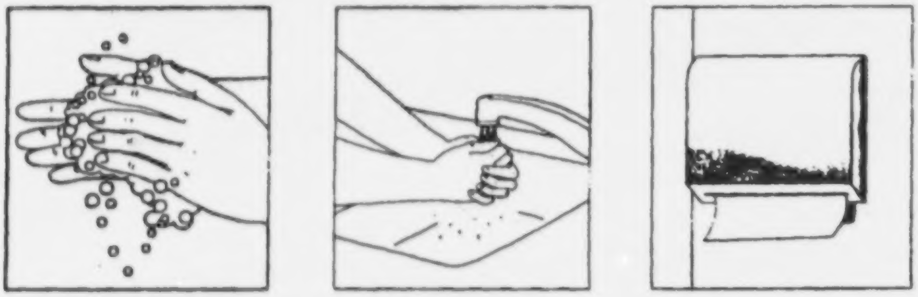
◆ Essential Questions: ◆ Sanitation

1. Why should institutional maintenance employees have a working knowledge and understanding of sanitation and disinfection principles?
2. Why is it important for institutional maintenance employees to carefully follow manufacturers' instructions when using disinfectants?
3. How does personal hygiene contribute to the overall cleanliness of an institution?
4. What are some characteristics of good personal hygiene?
5. The proper hand washing technique consists of what steps?

Proper Hand Washing Techniques



1. Use water as hot as the hand can comfortably stand.
2. Moisten hands, soap thoroughly, and lather to elbow.
3. Scrub thoroughly, using brush for nails. Rinse.



4. Resoap and lather, using friction for 20 seconds.
5. Rinse thoroughly under running water.
6. Dry hands, using single-service towels or hot-air dryer.

Source: ***West & Wood's Introduction to Foodservice*****, J. Payne-Palacio & M. Theis, Copyright © 1997 by Prentice Hall. Reprinted by permission of Prentice Hall.**

Figure 9.2

Chapter Highlights

- Institutional maintenance personnel can contribute to the safety of an institution by paying attention when operating equipment, handling and caring for equipment carefully, using the correct tools and equipment to complete jobs, observing safeguards when working with electrical equipment, and wearing protective clothing.
- When using cleaning supplies, individuals should understand the intended use of the supplies, carefully read labels on the supplies, follow label instructions, and follow guidelines for safe use of cleaning supplies.
- Cleaning supplies should be clearly labeled and stored in an assigned location to assist institutional maintenance employees in the efficient use and control of supplies.
- Maintenance personnel can prevent most accidents by observing safety rules and procedures, identifying and reporting hazards, knowing the location and proper use of emergency equipment, and knowing basic first aid procedures.
- In order to save lives and prevent further injury, employees should be trained in the use of basic first aid procedures. These procedures include preventing severe blood loss; maintaining breathing; preventing shock; treating severe burns; treating head, neck, and back injuries; and treating choking victims.
- Unsanitary conditions, such as unpleasant odors, the spread of germs, and the invasion of rodents and insects, can be prevented by institutional maintenance employees who understand sanitation procedures, disinfection principles, and the importance of personal hygiene.

Chapter 10

Selecting Equipment and Supplies

Chapter Focus

The following Essential Knowledge and Skills are discussed in this chapter:

5A Demonstrate safe and responsible storage, use, and disposal of materials.

7A Develop guidelines for selecting equipment, supplies, and procedures for assigned tasks.

7B Apply appropriate procedures while operating equipment and using tools and products in the performance of assigned tasks.

7C Describe the impact of technology on equipment, supplies, and procedures utilized in the industry.

7F Predict institutional maintenance cost variances based on material, surface, and furnishing considerations.

8A Exhibit work simplification techniques and prescribed procedures for specific cleaning tasks.

11G Predict the impact of technological advancements on the institutional maintenance management and services industry.

Chapter Vocabulary

broom
brushes
carpet sweeper
custodial carts
detergent
dust mop
dustpan
extraction machine
H.E.P.A. filter vacuum
housekeeping cart
rotary floor machine
soap
sponge
squeegee
vacuum cleaner
wet mop
wringer/squeezer attachment

Read chapter sections for additional terms related to housekeeping equipment - nonchemical and chemical.

SELECTING EQUIPMENT AND SUPPLIES

In institutional cleaning, the maintenance and housekeeping staff use a variety of cleaning products, tools, and power equipment. In the past, soap and a wet mop were used to clean areas that could not be cleaned with a straw broom. Modern standards of cleanliness expected by individuals such as guests, patients, tenants, and residents continue to rise and can no longer be met by using outdated cleaning methods.

Executive housekeepers and managers must continually evaluate cleaning products and tools. Their goal is to search for equipment and supplies appropriate for completing specific tasks. It is a challenge to find equipment that is durable and will withstand continuous use with limited maintenance so as to be cost-effective in the use of resources. Supplies and equipment are selected based on the following criteria:

- Safety
- Ease of use
- Performance
- Ability to withstand continuous use
- Ease of maintenance/general repair
- Cost-effectiveness
- Availability of safety information
- Availability of safety instructions

On a regular basis, executive housekeepers and managers are expected to maintain a supply and equipment budget. They are required also to monitor equipment and supply use in order to control costs. Controlling costs includes monitoring losses of supplies and equipment due to theft or misuse.

Proper training of employees in the safe use of equipment and supplies is essential. Employees should be trained to avoid wasteful use of supplies. Some institutions use packaged, premeasured cleaning products as a way to control supplies usage.

When selecting equipment, the executive housekeeper or manager should evaluate whether each employee who is expected to use the equipment possesses the aptitude to learn its operation within a reasonable amount of time. Complicated equipment requires extra training to ensure that it is used safely and efficiently. When employees do not understand how to operate equipment it will go unused. Also, a lack of training in how to operate machinery can result in costly accidents.

Having the proper tools and equipment for the job allows individuals to perform tasks more easily and efficiently. Some equipment is expensive and will be expected to last and perform efficiently for long periods of time. Therefore, an executive housekeeper or manager should consider the following questions before purchasing equipment:

- How often will the equipment be used?
- Can the equipment be used for more than one task?
- Will the chosen equipment be more efficient than other types of equipment?
- Who will use the equipment?
- Is the equipment easy to operate, carry, and store?
- Does the equipment eliminate strenuous work such as lifting, stooping, bending, and stretching?
- Is the equipment designed from ergonomic principles?
- How does the cost of the equipment compare to the time and effort that will be saved?
- Are the operating procedures for the equipment easy and safe?
- Does a reputable company back the equipment?
- Do the equipment and replacement parts come with a warranty?

The institutional maintenance staff should carefully read labels and material safety data sheets to educate themselves regarding the contents of the products, the purposes for which they are intended, and the application procedures. Disinfection products may require approval by an infection control or safety committee, as may any product changes. Since it is impossible to become an expert on every cleaning product or piece of cleaning equipment, executive housekeepers and managers often rely on reputable suppliers to assist them in making wise selections.

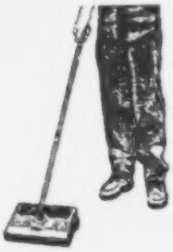
◆ Essential Questions: ◆
Selecting Equipment and Supplies

1. What factors should be considered when selecting maintenance and housekeeping equipment and supplies?
2. What are some questions that should be considered before purchasing equipment? Why is it important to address these questions?

HOUSEKEEPING EQUIPMENT

Classification of Housekeeping Equipment

Housekeeping equipment can be classified as nonchemical or chemical. Further, nonchemical equipment is categorized as either small or large housekeeping equipment. Small equipment includes carpet sweepers, brooms, dustpans, brushes, sponges, dust cloths, feather dusters, dust mops, wet mops, mop buckets, squeegees, spray bottles, putty knives, and ladders.



Large housekeeping equipment includes housekeeping carts, trash containers, vacuum cleaners, floor care machines, and wall washing machines. Chemical supplies include all those cleaners and products used to disinfect and remove soil, including those used to beautify, protect, and preserve the property.

◆ Essential Questions: ◆
Housekeeping Equipment

1. What are examples of nonchemical housekeeping equipment?
2. What are examples of chemical housekeeping equipment?

HOUSEKEEPING EQUIPMENT—NONCHEMICAL

Small Housekeeping Equipment

Carpet Sweepers. A ***carpet sweeper*** has manually-powered brushes that sweep crumbs, surface dirt, and small litter into self-enclosed dust pans. These pans are emptied as they become full. Carpet sweepers are useful in policing dining and public areas because they can be used without disturbing patrons. Carpet sweepers are often carried on housekeeping carts and used where it is not practical to use a vacuum cleaner. Although convenient and easy to operate, carpet sweepers are intended for touch-up use and do not replace the regular vacuuming schedule.

Brooms. A ***broom*** is used for collecting lint, scraps, or large pieces of trash or litter from hard floors. Corn brooms may be used to remove trash or litter from carpeted areas prior to vacuuming. Brooms are classified by their weight per dozen. A twenty-four pound broom means that twelve brooms weigh twenty-four pounds, or each broom weighs two pounds.

While most housekeeping can be accomplished with general utility brooms, industrial uses require heavier brooms. In today's housekeeping operations, brooms are not used as often as push brooms and vacuums. However, brooms are still useful for cleaning crevices and rough surfaces and for removing bulky or heavy trash or litter.

Brooms should be hung from a tool bar or other wall hanger to allow air to circulate around the bristles. Standing brooms on their bristles during storage bends the bristles so they are not as effective in cleaning. Brooms should not be regularly used to clean up wet materials. When brooms are dirty or have been used to handle wet material, they should be washed with a mild detergent and rinsed thoroughly. Brooms should be hung by their handles and allowed to dry thoroughly before being used.

Different types of brooms and their uses are listed:

- ***Floor broom***: a small-scale broom and dustpan with a handle. Floor brooms usually have nylon bristles and are often used in public areas to pick up cigarette butts, food crumbs, broken items, or scraps of paper. A floor broom is also referred to as a *toy broom*.
- ***Whisk broom***: a hand-held broom used for cleaning areas where vacuuming is impractical or unsuccessful. Whisk brooms are often used to clean fabric or upholstery and to brush out small, semi-enclosed areas such as shelves.
- ***Push broom***: also called a ***floor brush***, a push broom is used to clean large areas of floor without creating a large amount of dust. Push brooms have two rows of bristles. The bristles in the front row are heavy-duty bristles for collecting stubborn, hard-to-remove debris. The back bristles are finer and are good for removing fine particles of dirt and debris. Push brooms are most often used in industrial settings where vacuums or treated dust mops are not practical.

Push brooms are available in a variety of sizes. The largest push broom practical for the job should be chosen for efficiency. A brush that is wider than eighteen inches should have a braced handle so that the handle does not break at the block. Some companies offer push brooms with built-in shock absorbers that prevent broken wooden handles.

A push broom should be stored either resting on the end of the handle or hanging from the head or handle so that bristles are not bent. When dirty or wet, push brooms should be washed with mild detergent and rinsed thoroughly. Push brooms should be allowed to dry completely before being used. Bristles will deteriorate if used wet or for wet materials.

Dustpans. A ***dustpan*** is a pan into which dirt and litter is swept or brushed. Plastic dustpans are molded thinner at the opening to allow for easy access to the pan. Generally, metal dustpans have a thin rubber lip that lies snugly on the floor and allows dirt to be swept onto it with ease. Some dustpans have long handles and an attached lid that keeps litter hidden from view and helps to control dust when sweeping in public areas. These ***long-handled dustpans*** can be referred to as ***lobby dustpans*** and are used frequently with toy brooms.

Dustpans should be clearly labeled as to where they are to be used. Additionally, dustpans should be emptied after use and washed daily or as needed. Storage should be on a hook or on a shelf to avoid damaging the flat front edge.

Brushes. ***Brushes*** are used to remove soil or dirt from both hard and soft surfaces. Brushes are good for loosening soil or dirt that has settled deeply into the surface. There are a large number of brushes with varied utility uses – too many to list in this reference book. Below are two types of brushes commonly used in housekeeping:

- ***Toilet brush***: used to remove soil or water deposits from toilet bowls and urinals.

Some brushes are shaped to make cleaning under the bowl rim easier. A toilet brush with a built-in detergent dispenser, called a ***fountain brush***, is sometimes used in housekeeping operations.

- ***Scrub brush***: used for scrubbing floors or other heavily soiled surfaces. Scrub brushes are available in a variety of sizes and shapes to fit specific applications. Often, they are used with a liquid or solvent cleaning solution since dry brushing tends to distribute dust. However, when using dry brushing with suction - as with a vacuum cleaner - the treatment works well.

Sponges. A ***sponge*** is used for a variety of cleaning tasks, such as absorbing liquids and cleaning sinks and counters. Sponges are available in a variety of colors and shapes and can be either natural or synthetic. Sponges are economical because they are fairly inexpensive, can be used repeatedly, and are easily washed when soiled.

Dust Cloths. A ***dust cloth*** is used to remove light soil that accumulates on surfaces. They can be used for either wet or dry application. Hospitals use only wet cloths in order to control the redistribution of dust.

Dust cloths for dry surface use can be treated with oil to improve their ability to remove dust. Treated dust cloths are a potential fire hazard and must be stored in metal, air tight containers. Many cloths today are disposable and should be properly disposed of promptly after use.

Feather Dusters. A ***feather duster*** is used to remove cobwebs and dust decorative items, items with small crevices, lampshades, light fixtures, picture frames, books, and hard-to-reach areas. Some feather dusters have telescoping handles so that they can be used to dust areas such as ceiling corners.

Dust Mops. A ***dust mop*** is used to sweep dry, smooth, hard-surface floors. Dust mops should never be used on wet or oily surfaces. Dust mops are usually treated with a spray solution that attracts dust without leaving a residue on floors. A dust mop should remain in contact with the floor at all times to ensure minimum dust distribution and maximum dust collection. Pressure is not necessary for proper mopping action.

Special care of the dust mop is required for long wear and efficient use. After daily use, a dust mop should be vacuumed or taken to a dumpster or trash bin and shaken to remove dust and small litter. When using disposable dust mops, they should be disposed of immediately after use. Disposable dust mops are expensive compared to regular dust mops; however they are extremely hygienic.

Cotton dust mop heads are often sprayed with chemicals that attract and hold dust. Treatment is applied prior to using the dust mop. The spray treatment should be applied according to directions on the spray container. After treatment, the dust mop should be rolled up and placed in a specially marked container. The dust mop should remain in the container overnight to allow the treatment to completely saturate the mop strands. Overtreating should be avoided since it does not improve dusting and may leave an unsafe and unsightly residue on floors. When the dust mop is soiled, it should be placed in a net bag, washed in a warm detergent solution, and dried thoroughly before using or retreating.

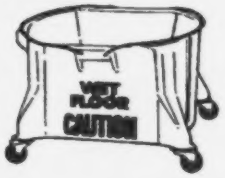
Wet Mops. A ***wet mop*** is used to transfer wet liquids to and from floors. Wet mops used in institutions should have detachable mop heads so they can be washed and dried. Drying is an important part of mop care since bacteria can multiply in moist mops.

Mops are usually made of cotton, rayon, or a cotton/rayon blend. Some mops are made of cellulose strands and have characteristics similar to sponge mops. Now available on the market are mops permanently treated

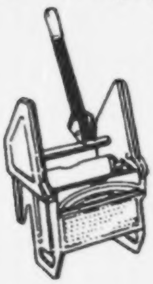
with a special solution that prevents the spread of disease-causing germs. New mop heads should be soaked in warm water prior to first use to remove excess oils and expel any air trapped in the mop strands. This allows a mop to be more absorbent.

Mops should be hung in a dry area with mop heads hanging down so they do not touch walls, floors, or equipment. In addition, mops should be hung in an area where people will not brush against them. Keeping mop strands separated and free of litter can prolong the life of a mop.

- ***Sponge mop***: used to clean walls, floors, and small areas such as stairs. Sponge mops can also be used to clean up spills and apply floor finishes. Usually, a sponge mop has a built-in wringer on the handle. Sponge mops weigh less than other mops and are easy to use. However, sponge mops are easily torn by rough surfaces, and strong cleaning solutions may damage them.



Mop Buckets/ Wringers. A ***mop bucket*** is made of heavy plastic or metal and usually has casters so it is easy to move. The best design includes rubber bumpers to protect walls and furniture. Additionally, many mop buckets have a wringer/squeezer attachment. A ***wringer/squeezer attachment*** removes excess water from mops.



Mop buckets should be washed, rinsed, and thoroughly dried following each use. Liquids should never remain in a mop bucket overnight. The ideal mopping situation uses two mop buckets. One bucket holds the detergent solution and one bucket holds clean water for rinsing the mop. This procedure keeps dirt from floors from being mixed with the detergent solution. Two buckets can be placed on a dolly, or a compartmented bucket can hold both solutions.

Squeegees. A ***squeegee*** is a rubber blade, similar to the windshield wiper on a car, used to move water on flat surfaces. There are two types of squeegees - floor and window. Small squeegees are used when washing windows. Window squeegees come with attachments to make the work easier. For example, telescopic handles enable workers to wash out-of-reach windows without the need for extension ladders.

Large, heavy squeegees are used on floors, tile walls, and sinks. Water on floors can be moved into a pickup pan that is similar to a dustpan with sides and a holder for water. Squeegees should be wiped dry following use and kept away from sunlight. Sunlight can damage the rubber blade. Squeegees should never be stored resting on the blade. Squeegee blades should be replaced when damaged.

Spray Bottles. A ***spray bottle*** produces a mist or jet of liquid and is used to apply products such as cleaning solutions, dust mop treatments, and insecticides. Spray bottles can be pump-type or pressurized. Larger sprayers can be worn on the back for easy transport. Usually, housekeepers use three to five pump-type spray bottles for various cleaning solutions. Different solutions should be identified with clearly marked labels.

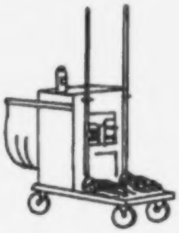
Putty Knives. A ***putty knife*** is a tool with a broad, flexible blade used to scrape dried or sticky materials from hard surfaces. Putty knives are handy for removing gum or other dried-on substances from hard flooring. They should not be used on painted surfaces since these surfaces can be easily scratched.

Ladders. A ***ladder*** is used to reach high places, such as walls, windows, light fixtures, and other overhead areas. Personnel should

be trained in the proper use of ladders. To ensure safety, ladders should be thoroughly inspected before and after each use.

Large Housekeeping Equipment

Housekeeping Carts. A ***housekeeping cart*** is used to carry equipment, supplies, and trash from one area to another. Often, housekeeping carts contain three deep shelves, an area for soiled linen, an area for collecting trash, storage for a vacuum, and partitioned top storage. Housekeeping carts should be able to hold all the supplies and linens necessary for a housekeeping daily cleaning schedule. A housekeeping cart is also referred to as a ***service cart, utility cart,*** and ***supply cart.*** A properly stocked housekeeping cart can improve production by eliminating unnecessary trips to the main linen room.



A fully stocked housekeeping cart usually contains linens, supplies, small equipment, trash bags, and laundry bags. The housekeeping cart must be sturdy enough to support this amount of weight and withstand heavy use. Lightweight carts of polystyrene, fiberglass, or wire are more easily maneuvered when fully stocked than are carts made of heavier materials. The weight of a stocked housekeeping cart is often greater than the weight of the individual who will use the cart. Therefore, heavy, durable casters - wheels that swivel - allow even a small person to easily maneuver a stocked housekeeping cart. Additionally, bumper guards should be in place to help protect walls and door casings.

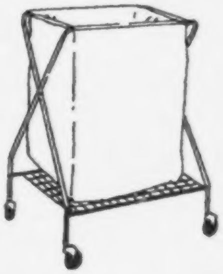
Housekeeping carts should be cleaned weekly. Wheels or casters should be lubricated weekly and checked for smooth movement. Strings and other debris should be removed from wheels. Housekeeping carts used in health care facilities should be disinfected on a regular basis.

Custodial Carts. ***Custodial carts*** are similar to housekeeping carts in that they are used to carry equipment, supplies, and trash from one area to another. The difference is that custodial carts are used primarily for the transportation of routine cleaning supplies and equipment with an emphasis on floor care, restroom care, and trash collection.

An important duty performed by institutional maintenance employees is collecting and transporting trash from various parts of the building to a central disposal site. This can be accomplished effectively since in many cases the custodial carts have a trash collection receptacle built into them.

Custodial carts should be sturdy and constructed of non-corrosive, long-life materials. They should also be easy to manuever within the work area and designed to fill the supply and trash transportation needs of the particular job.

Trash Containers. A ***trash container*** is a canvas bag used to collect dry trash from wastebaskets. Trash containers are placed either on housekeeping carts or on a frame with wheels. Cigarette ashes, soggy papers, or liquids should not be placed in trash containers. Trash containers should be emptied daily or when full and wiped or brushed clean. Soiled trash containers can be exchanged for clean containers.

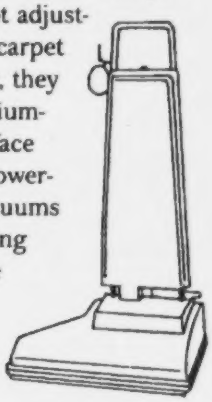


In order to prevent using separate bags for dry trash and wet trash, many institutions use large, plastic bag lined barrels on wheels to collect all trash except cigarette ashes. To prevent fires, cigarette ashes should be placed in a metal container carried on the housekeeping cart.

Convertible Shelving Carts. A ***convertible shelving cart*** is used to hold and transport linens. The shelves of the cart are adjustable. They can be released to form the sides of a bin that serves as a soiled linen cart or put in place to hold clean linens. This versatility can decrease equipment costs and aid in the transportation of linens.

Vacuum Cleaners. A ***vacuum cleaner*** is a machine that uses suction to remove dirt and debris from carpets, floors, and upholstery. Vacuum cleaners may have a single motor or dual motors. In a ***single-motor vacuum***, one motor provides suction and powers the beater bar. A ***beater bar*** contains brushes and rotates to loosen dirt that can be easily vacuumed. A single-motor vacuum must be adjusted to fit various heights of carpet or floor covering. When a vacuum is adjusted properly, brushes on the beater bar barely touch the floor covering. Single-motor vacuums are less expensive and weigh less than dual-motor vacuums and they can be used to clean both hard-surface and carpeted floors.

With a ***dual-motor vacuum***, one motor creates suction and a second motor powers the beater bar. Dual-motor vacuums are referred to as ***commercial vacuums***. Usually, dual-motor vacuums are not adjustable for various heights of carpet or floor covering. However, they can remove small and medium-sized debris from hard-surface floors since they provide powerful suction. Dual-motor vacuums are not the best for removing fine dust from hard-surface floors. Therefore, hard-surface floors should be dust mopped following the vacuuming procedure. Dual-motor vacuums are more expensive, weigh more, and are more powerful than single-motor vacuums.



Vacuum cleaners may have a variety of attachments that can be used for special needs. These may include crevice tools, brushes for dusting, floor brushes, upholstery or drapery tools, and magnetic bars that can be attached to the front of vacuum cleaners to attract metal items, such as paper clips, staples, needles, and screws.

Many vacuum cleaners hold bags that contain the dirt and debris that has been vacuumed. ***Vacuum cleaner bags*** are made of cloth or paper. A cloth vacuum cleaner bag is unlined. Therefore, collected dirt must be dumped or brushed out of the bag. In order to work efficiently, vacuum cleaners exhaust air through the cloth bag. As air is exhausted through the bag, some dirt is forced through the bag and into the air. Paper vacuum cleaner bags collect dust and, often, are used as liners for cloth bags. Paper bags can easily be removed and discarded with little dust escaping into the air.

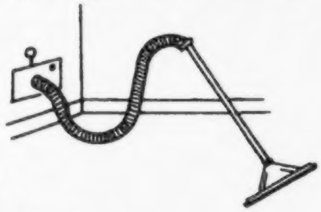
Technological improvements in the industrial equipment industry have led to the development of the H.E.P.A. filter vacuum. The ***H.E.P.A. (High Efficiency Particulate Air) filter vacuum*** is specially made to be used anywhere fine dust may be a critical problem. Hospitals, computer rooms, and precision assembly areas are places where a H.E.P.A. filter vacuum may be found. These filters are efficiently designed to hold the dust inside the vacuum so the exhaust air is clean. Some H.E.P.A. filters have as much as a 99.97% efficiency rating.

Also available for institutional cleaning are vacuums that do not contain a bag. In these models, the vacuum draws dirt through the intake chute where the heavier dirt immediately drops into a storage hopper mounted below. Filters trap the lighter soil so no dirt ever passes through the motors. Therefore only clean air is exhausted from the machine. The dirt trapped in the filters is dumped into the hopper by moving a handle or switch on the control panel of the vacuum.

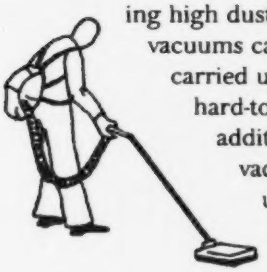
Some vacuum cleaners are battery powered. Battery powered vacuums decrease the amount of time lost in unplugging and plugging in electric vacuums. With battery operated models, there are no power cords to move, no need to change outlets, and no cords to run over.

Before making a purchase, the executive housekeeper or manager should compare vacuum cleaners on the basis of number of motors, horsepower of the motors, ease of emptying the collected dirt, ease of changing belts, and ease of routine maintenance. Additionally, with the large array of vacuum cleaners from which to choose, the different housekeeping tasks should be assessed and the best machine for each job should be purchased. Examples of vacuum systems used in institutional maintenance are as follows:

- ***Space Vacuums:*** a large, motor-driven, upright vacuum that resembles a lawn mower. They are approximately thirty inches wide and are capable of picking up large pieces of debris. Space vacuums are used to clean large areas such as public areas, lobbies, meeting rooms, and corridors. Space vacuums may have either an exposed or an enclosed vacuum bag. These machines must be selected carefully as they are expensive.
- ***Riding Vacuums:*** a large vacuum that is ridden much like a riding lawn mower. Riding vacuums are used in large facilities such as malls and sports arenas. These vacuums remove both wet and dry litter and trash. Due to their size, riding vacuums do not always adequately contain dust that is removed from floors. Some dust may escape from the dust container and settle on floors. Therefore, floors should be dust mopped after using a riding vacuum.
- ***Built-in Vacuum Systems:*** a type of vacuum in which the motor of the vacuum is placed in a central location, such as a basement. Pipes connect the motor to different areas within an institution. The housekeeper uses the vacuum by connecting vacuum hoses to ports that, generally, are located on walls. All dirt and debris that is vacuumed is collected in one location, usually near the motor. A built-in vacuum allows the housekeeper to vacuum without disturbing patrons since only a slight suction noise is heard in the area being vacuumed. Since the dirt is collected in another area, a cleaner environment is maintained.



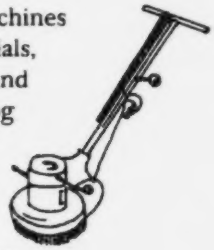
- ***Wet/Dry Vacuums:*** a canister vacuum that can pick up either wet or dry matter. When used as a ***wet vacuum***, the motor has a bypass protection to shield it from moisture. Wet vacuums are effective in removing water, food, and liquid spills. Wet/dry vacuums are available with a variety of tank sizes. In commercial cleaning, the most common tank size holds twenty gallons of recovered liquid. A wet/dry vacuum is not very efficient when used as a ***dry vacuum*** because a small filter limits dust removal. Therefore, most institutions use the wet/dry vacuum only as a wet vacuum. Wet vacuums are used when hard-surface floors are stripped and cleaned. A drier, cleaner surface can be attained with a wet vacuum than with a mop. A large wet vacuum, referred to as a ***scoop machine***, is used in areas that often require the removal of large amounts of water, such as swimming pool and recreational areas. Scoop machines have a squeegee located on the front or the back of the machine. As an operator pushes the machine, the squeegee moves the water allowing the machine to draw in the water. There is no need for a ***wand*** (a slender hand-held rod used for suction) and cleanup can be accomplished quickly. Scoop machines can pick up dry materials, also.
- ***Backpack Vacuums:*** a small vacuum that straps onto the back and has a hand-held wand with various attachments. Backpack vacuums provide flexible and efficient cleaning of curtains, drapes, ceiling corners, high shelves, and other areas requir-



ing high dusting. Backpack vacuums can easily be carried up ladders to clean hard-to-reach areas. In addition, backpack vacuums can also be used when cleaning in confined areas. While some backpacks may have a floor attachment, these seldom replace the regular vacuum cleaner.

- ***Electric Brooms:*** a lightweight vacuum that has no motor-driven beater bar. Electric brooms are mainly used for light vacuuming tasks. They seldom replace regular vacuums, which provide more thorough floor cleaning.
- ***Hand Vacuums:*** usually, rechargeable batteries power a hand-held vacuum. Hand vacuums are used for vacuuming small spills on floors, furniture, and stairs as well as vacuuming draperies and window blinds. Some hand vacuums also function as wet vacuums.
- ***Built-in Cart Vacuums:*** these are high-powered vacuum cleaners built into the housekeeping cart. A long vacuum hose allows the nozzle to reach from a corridor and throughout an entire room. A major disadvantage to using a built-in cart vacuum is that the motor generates much noise, which can disturb patrons.

Rotary Floor Machines. A ***rotary floor machine*** uses a rotating pad or brush to clean and polish hard-surface floors. A rotary floor machine is referred to by other names such as ***buffer***, ***scrubber***, ***stripper***, and ***polisher***. In some institutions, separate rotary floor machines are used for different operations. However, most floor machines can be used for a variety of operations by changing the type of pad or brush. Examples of jobs that can be accomplished by one rotary floor machine include stripping and scrubbing hard-surfaced flooring and shampooing carpeted areas.



Pads for rotary floor machines are made of synthetic materials, such as nylon or polyester, and natural materials, such as hog hair. Abrasive materials like flint and garnet are added to synthetic and natural pads to improve their scrubbing and polishing ability.

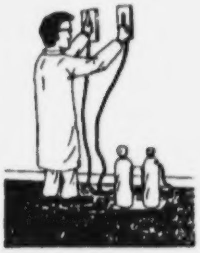
Each time a floor is buffed, a small amount of floor finish is stripped. The stripped floor finish creates a fine dust that coats hard surfaces such as walls and shelves. Some rotary floor machines are equipped with a vacuum that removes dust as the floor is buffed. This type of machine reduces the amount of dust in the air.

Electricity, propane, or batteries can power rotary floor machines. Propane and battery-powered machines offer greater mobility than electric-powered machines. Additionally, these machines are more efficient since time is not lost connecting plugs, disconnecting plugs, and manipulating cords. In order to achieve the best results, batteries must be charged regularly. Propane-powered machines offer flexibility of movement, but they are noisy and emit a small amount of fumes. These machines should be used in well-ventilated areas only.

Extraction Machines. An ***extraction machine*** is a piece of equipment that injects and then removes a hot detergent mist from carpet. An extraction machine consists of two tanks and a wand. One tank contains a heated carpet cleaning solution. A second tank collects the soiled solution extracted from the carpet. The wand consists of a combination vacuum and solution applicator.

Extraction machines operate in the following manner. Hot cleaning solution is sprayed into the carpet under pressure. Cleaning solution and loosened soil are immediately vacuumed into the receiving tank. Some wands include a motor-driven beater bar to loosen soil for easy removal. Sometimes, extraction machines are referred to as ***steam-cleaning machines*** even though no steam is produced.

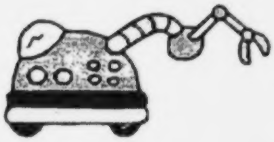
Wall-washing Machines. A ***wall-washing machine*** is used to clean walls and consists of two tanks and two flat, rectangular trowels (pads). Cleaning solution is placed in one tank and clear water for rinsing is place in the other. Each tank contains a tube that connects to a trowel that is covered with a terry cloth pad. The operator places the trowels against the wall and releases cleaning solution or rinse water by squeezing a trigger. The trigger controls the amount of cleaning solution or water released. Brushes can be placed on the trowels to clean highly textured or rough walls.



Robotics

Robots may be used in the field of institutional maintenance in the near future. Testing of robotic machines is being conducted in hospitals and other facilities. HelpMate®, the Trackless Robotic Courier, is one type of self-propelled robot that can perform a variety of tasks and services. For example, HelpMate® can deliver meals to nursing units for patients who are admitted after normal meal times. Other duties that HelpMate® successfully carries out are transporting pharmaceuticals, lab specimens, equipment and supplies, medical records and radiology films back and forth between support departments and nursing floors.

HelpMate® is programmed to locate all nurses' stations without human assistance. A map of the hospital is stored in memory and the robot can communicate with humans by voice output. As an acting courier (messenger), HelpMate® uses elevators by triggering an electronic signal that calls an elevator car to the floor where it is located. As HelpMate® travels through the hospital, it recognizes and avoids both stationary and moving objects. If any person or piece of equipment crosses the robot's path, the robot stops, pauses, and navigates to the side.



Eventually, robotic couriers could save hospitals large amounts of money. From figures based on a 1998 study, it is estimated that 15 human couriers averaged $21,344 per year, including benefits, resulting in an annual cost of almost $450,000 for the human delivery system. Although the robotic system cost approximately $600,000 to put into operation, annual operating cost was about $155,000. This system results in a savings of approximately $300,000.

Robots may be used also for surveillance (with a camera mounted on the robot) and for moving supplies and equipment. A robot could be linked with computers and telephone systems to allow for central dispatching and monitoring of the robot as it travels through a facility. Supplies and equipment could be automatically sent to various stations, clean and soiled linen could be transported, trash and waste could be transported, and emergency supply or equipment needs could be met without delaying work by removing a housekeeper from the work area.

Robots could be programmed to perform time-consuming, dangerous, or monotonous tasks while housekeepers apply their skills more effectively. For instance, there is current testing with a robot as vacuum cleaner. This robot has been equipped with a real vacuum cleaner and an arm that can move in small sweeping motions. Additionally, the robot vacuum cleaner is able to detect obstacles, classify them, follow a wall, and measure angles.

◆ *Essential Questions:* ◆ *Housekeeping Equipment – Nonchemical*

1. What types of brooms do institutional maintenance employees use? How should the different types of brooms be stored?
2. What is the correct method of storing treated dust cloths?
3. What special care procedures do dust mops require?
4. Why is it important to properly care for wet mops?
5. Why is the two-bucket method of cleaning better than the one-bucket method?
6. What is the function of a squeegee? How should it be stored?
7. What are examples of items commonly kept on housekeeping carts?
8. What are some types of vacuums used in institutional maintenance? How do these vacuums differ?
9. For what purposes are rotary floor machines and extraction machines used?
10. How might the use of robots affect the field of institutional maintenance?

HOUSEKEEPING EQUIPMENT – CHEMICAL

Using an inappropriate cleaner or polish on a surface can cause permanent damage. It is important for institutional maintenance employees to be able to identify surface materials. Architects and designers may select a surface on the basis of its appearance, not on how easy it is to clean. Because there are so many types of surfaces available today, maintenance and housekeeping employees need to be aware of the chemical composition of surfaces to be cleaned as well as the components of the chemicals used for cleaning. Continually using the wrong type of cleaner can damage a decorative surface. Some cleaners may even remove or dissolve a surface.

Executive housekeepers and managers should select supplies that provide maximum efficiency at minimum cost. The supplies must accomplish proper results without causing harm to surfaces or the user. Cost-effectiveness must be considered when selecting supplies. The cheapest costing supplies may actually be most expensive when selecting all-purpose cleaners if dilution ratios are not considered. For example, a cleaner purchased in bulk at $2.00 per gallon at a dilution ratio of 4:1 (four parts water to one part cleaner) is more expensive than a cleaner purchased at $4.00 per gallon at a dilution ratio of 10:1 (ten parts water to one part cleaner).

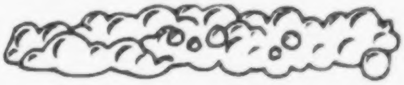
Premeasured products are housekeeping supplies that are measured and packaged in the correct dilution amounts. Premeasured products are more expensive to purchase, but they are easy to use and effective in controlling waste. The use of premeasured products provides a high degree of cost control, better inventory procedures, and optimum cleaning.

Before using supplies, institutional maintenance employees should be trained in their proper use. Incorrect use of cleaning supplies may result in some of the following:

- Discoloration of a surface
- Slippery and dangerous floors
- Loosening of adhesives used for tiles and panels
- Removal of special finishes
- Time-consuming corrective measures
- Dangerous situations for the user

Types of Housekeeping Supplies

Soaps. ***Soap*** is a natural cleaning agent made of strong alkaline materials and fatty substances. Soap reacts in hard water and produces a milky, germ-harboring film, often referred to as ***soap scum***. In addition, soaps do not rinse well, leaving greasy residues or streaks that interfere with disinfection. Additional chemicals must remove soap residue before a disinfectant solution is effective. The cost-effectiveness of soap is low since additional expenditures are necessary in order to remove the soap film.



Detergents. A ***detergent*** refers to any formulated cleaning agent other than soap. First introduced forty years ago, detergents are made from synthetics such as pertrochemicals and contain surfactants to make them more powerful cleaners. A ***surfactant*** is a compound that has both a water-soluble portion and an oil-soluble portion that make it surface-active.

Surfactants reduce surface tension by breaking the bond between the soil and the surface being cleaned and permitting the oil or dirt to be removed. Soil is usually a mixture of dust, mud, grit, oil, and/or grease. The ***hydrophobic*** (water-fearing) portion of the surfactant locks onto the oil material and the ***hydrophilic*** (water-loving) portion dissolves it in water. In other words, the surfactant pulls the soil away from the surface and into the water portion of the solution.

A good detergent should be effective even when confronted with an above-normal amount of soil. The amount of surfactant in a cleaner is not necessarily the best indicator of how well it will work because some surfactants are more effective than others. Surfactants can be grouped into the following categories according to their chemical composition.

- ***Cationic Surfactants. Cationic surfactants*** are seldom used alone because they have very little cleaning power. Therefore, they are usually combined with non-ionic detergents to form what is known as quaternary ammonium compounds (QUATS). These compounds can stabilize foam and inhibit corrosion. Surfaces wiped with a cationic solution repel dust and bacteria for long periods of time. Hence, they are generally regarded as sanitizing agents rather than detergents. Hospitals use cationic solutions for wiping floors, walls, furniture, and dishes. They are safe to use and have no apparent taste or smell.
- ***Anionic Surfactants.*** An ***anionic surfactant*** is an effective cleaner for light soil and is safe to use. Anionic surfactants account for over 80% of all synthetic detergents. They can be found in washing powders, hard floor cleaning products, and carpet shampoos. Because anionic surfactants generate a high level of suds, solution strengths recommended by the manufacturer should be followed. Additionally, any area cleaned with the anionic surfactant should be thoroughly rinsed and dried. Many anionic surfactants contain chemicals that help to control suds. Detergents using anionic wetting agents should not be used

to clean prior to the application of quaternary ammonium as a disinfectant. Quaternary ammonium is cationic in nature and is not compatible with anionic products. This incompatibility results in the formation of a heavy, unsightly film on surfaces, and germicidal action is greatly diminished.

- ***Nonionic Surfactants.*** ***Nonionic surfactants*** have excellent detergent properties making them effective for removing oil, grease, and dirt. However, nonionic surfactants are expensive to produce so they are generally added to cheaper anionics to boost cleaning power. Nonionics are often used in industrial cleaners. They produce low suds, making them good for use in electric floor scrubbing equipment where high suds could interfere with and damage the motor. In general, nonionic surfactants disperse oil and dirt well and are effective in both cold water and hot water.

All-Purpose Cleaners. Increasingly, institutional maintenance services are including all-purpose cleaners in their inventory of supplies. An advantage to all-purpose cleaners is that they are safe for most surfaces that can be cleaned with a water-based product. All-purpose cleaners are effective for most cleaning jobs because the dilution strength can be set for specific jobs. Therefore, using all-purpose cleaners keeps inventory supply levels down which results in greater profits for the business.

There are some disadvantages to using all-purpose cleaners. One is that they are inadequate for certain cleaning tasks. For example, they are not effective for cleaning bathroom equipment where a disinfectant is needed. Most all-purpose cleaners do not contain disinfectants. Another disadvantage to all-purpose cleaners is that employees may not properly dilute the cleaner for specific jobs. Some employees may have the attitude that "more is better" and fail to dilute the solution. This will drive up costs and reduce profit lines for businesses.

Stain Removers. A ***stain remover*** is a product that is used to remove soil that was not removed by normal cleaning. A ***stain*** is a discoloration often caused by proteins, acids, alkalis, dyes, or heat. A stain differs from soil in that it cannot be removed by using routine cleaning methods. It is important to determine, if possible, both the source and the chemistry of the stain in order to select the proper product and method for removing it.

Stains are removed by aggressive chemical action, by mechanical action, or by a combination of the two. Care must be taken when using a chemical to remove a stain since a chemical reaction can cause permanent damage to the surface being cleaned. Removing old stains is not always possible, but for new stains one of the following removal methods may be effective:

- Use a powder to absorb the stain.
- Use a solvent to dissolve the stain.
- Use an acid or alkaline cleaner to neutralize the stain.

Acid Cleaners. An ***acid cleaner*** is a strong cleaning agent used on hard-to-remove soils, such as lime deposits in toilet bowls and other non-metallic fixtures. Inorganic acids, such as hydrochloric, phosphoric, or sulfuric acid, are used to remove rust and other buildups. These strong acids are poisonous and corrosive. They should always be used in a solution followed by thorough rinsing.

Acids must be packaged and handled with extreme caution. Protective equipment such as goggles and gloves should be worn when using acids. Weaker, organic acids, such as citric and oxalic acid, can be effective, but they require more time to work.

Solvent Cleaners. A ***solvent*** is a cleaning agent that is capable of dissolving other substances. Most cleaners contain a solvent. Solvents are made from pine oils, kerosene, and alcohols. Solvents are used to remove gum, black heel marks, scuff marks, and other marks from floors and walls. Because solvents will damage some surfaces, especially plastic and wood, surfaces should be protected and excess solvent should be wiped up immediately.

A ***degreaser*** is a solvent used to remove oil, grease, or tar. Degreasers contain petroleum distillates or chlorinated hydrocarbons that can damage painted and plastic surfaces. Prior to use, a degreaser should be tested on an inconspicuous area of the surface to be cleaned.

Solvents can be sprayed on with a trigger sprayer or rubbed on with a towel. They have very strong fumes so they should be used in well-ventilated rooms. Because solvents evaporate, they are excellent for cleaning mirrors, windows, and pictures. All solvents are flammable, poisonous, and can cause damage to skin, so safety precautions should be observed.

Abrasive Cleaners. An ***abrasive cleaner*** is a cleaning agent that contains scouring materials and detergent components. Abrasive cleaners are used to remove stubborn stains. Although they are effective in removing stains, abrasive cleaners may damage some surfaces. Once a high-gloss surface is scratched or damaged, the gloss cannot be restored. Spray cleaners should be used on surfaces that may damage easily.

Abrasive cleaners, whether powdered or steel wool, are seldom used in health care facilities. The scratches that abrasive cleaners leave on surfaces provide places for microorganisms to hide. Therefore, scratched surfaces make cleaning more difficult. Each time an abrasive cleaner is used, a rougher surface is created onto which more soil clings.

Residue from abrasive cleaners is difficult to rinse from surfaces. Residue tends to clog drain lines. In addition, metal fragments from steel wool can cause stainless steel to rust.

Disinfectants. Disinfectants, also called ***germicides***, are agents that are used to kill disease causing bacteria and viruses on surfaces. Disinfectants must meet federal and state guidelines and must be registered and approved for use by the Environmental Protection Agency (EPA).

Many germs are killed through regular cleaning so disinfection is often unnecessary. However, regular use of disinfectants helps to prevent the growth of mildew and fungus. Mildew and fungus can stain hard surfaces, particularly tile grout. Once stains form, they can be removed only with bleach or an acid that destroys the grout. It is more cost-effective to use a disinfectant to control mildew and fungus growth rather than replace tile grout.

Deodorants. A ***deodorant***, or ***air freshener***, is a chemical that is used to destroy, absorb, or disguise unpleasant odors. Deodorants are available in block, jell, powder, and liquid forms, as well as aerosol sprays. Some deodorants mask unpleasant odors with stronger odors. However, once the scent of the deodorant weakens, the odor returns. Therefore, deodorants that mask odors are a short-term solution to odor control.

Good ventilation and thorough cleaning should make the use of deodorants unnecessary. However, in some institutional settings, use of deodorants in certain areas is written policy and should be observed.

Metal Polishes. ***Metal polish*** is a substance that cleans, shines, and protects metal objects such as door handles, push bars, and railings. The purpose of metal polish is to remove tarnish and scratches. Metal polish consists of a very mild abrasive, fatty acid, solvent, and water. Some metal polishes contain an ingredient that coats the surface of metal to slow the rate of tarnish.

Metal polishes are formulated for either hard or soft metals. It is important to use a polish appropriate for the type of metal being cleaned. For example, stainless steel polishes are more abrasive than are those intended for use on silver, gold, brass, and copper.

Metal polish does not penetrate metal. Therefore, excess polish residue should be removed. A buildup of metal polish attracts dirt and shows fingerprints more easily. Metal polishes have a strong odor and should be used in well-ventilated areas. Lids on metal polish containers should be secured in order to prevent evaporation.

Furniture Polishes and Cleaners. ***Furniture polishes and cleaners*** are used to clean, restore, and protect wood surfaces. The best polishes contain lemon oil that restores moisture lost from the wood. Wood polish should be used infrequently since frequent use causes a buildup that does not allow wood to breath. Wood polishes contain wax, solvent, water, and silicone. The wax enriches porous surfaces. Solvent removes grease while water removes water-soluble stains. Silicone eases polish application, increases gloss, and improves resistance to water, heat, dust, and smears. Furniture polishes and cleaners are available in the following forms:

- ***Paste*** (high percentage wax).
  Pastes are used on wood that is in poor condition. Wax in the paste "feeds" the wood and restores the shine. Pastes are applied with a soft cloth and rubbed to create a glow.
- ***Cream*** (high percentage solvent)
  Cream polishes create a high luster that is increased with continual use of the product. They are effective in cleaning wood but are to be used only on satin or gloss finishes. Furniture creams have a greater cleaning power than pastes and, therefore, have a stronger smell. Cream polishes should be applied with a dry or damp cloth and rubbed to a shine with a soft, dry cloth.

- ***Liquid*** (high percentage solvent)
  Used on glossy surfaces, liquid furniture polishes help remove food and drink stains and light grease marks. Liquid polishes may contain dyes that cover scratches on varnished surfaces. Since liquid furniture polishes contain a high amount of solvent, they are effective for cleaning wood. Liquid polishes should be applied with a soft cloth. To increase cleaning, the polish should remain on the wood for a period of time before being removed and rubbed to a shine with a soft, dry cloth.

- ***Spray and Aerosol*** (high percentage silicone)
  Spray and aerosol furniture polishes contain a high degree of silicone that coats wood and produces a surface that shines and repels dust and fingerprints. These products are ideal for use on glass, plastic, and varnished or gloss painted wood where the surface may become dull and fingermarked. It is best to spray polish onto a soft cloth and then rub onto a wood surface rather than spraying the polish directly onto the wood. Spraying polish directly onto wood products eventually causes a gummy buildup. When spraying polish, care should be taken to avoid getting the polish on surrounding surfaces. Spray and aerosol furniture polishes can cause slippery places on floors, damage to fabrics and rubber items, and greasy residue on plastics.

Floor Care Products. Floor care products are designed to clean and protect different types of flooring materials. Products include sealers and finishes, finish strippers, and carpet cleaners. The various products are discussed below:

- **Sealers and Finishes.** ***Floor sealers and finishes*** are designed to protect flooring material from wear, cleaners, and liquid spills. Sealers are either solvent or water-based. However, the chemical composition varies according to the type flooring material to which they are applied. When sealers are applied, they form a semi-permanent barrier that prevents the access of dirt, liquids, grease, stains, and bacteria. In areas with little traffic, floor sealers and finishes can last as long as five years without needing to be reapplied. However, in busy areas such as entrances, sealers and finishes may need renewing every year. Prior to the environmental movement, metal cross-linked floor finishes were popular for most resilient floor and stone floor applications. These polymer finishes dried to a high gloss without buffing, giving floors a "wet look." The metal component in the polymer finishes made them very resistant to wear. Today, these heavy metal finishes are being phased out due to environmental concerns. They create a danger when emptied into sewer lines. Therefore, companies are now producing a line of sealers and finishes that do not contain heavy metals.

- **Finish Strippers.** A ***finish stripper*** is a harsh alkali that removes worn finish from floors. Finish strippers work similar to paint remover. Finish strippers can damage floors, so maintaining floor finish for long periods of time is important. The finish on a well-maintained floor can last for several years before stripping is necessary. Floors with high traffic and heavy soil deposits will need to be stripped more often.
- **Carpet Cleaners.** ***Carpet cleaners*** are available in sprays, foams, dry powders, and shampoos. Common chemicals found in carpet cleaners include neutral water-soluble solvents, emulsifies, defoamers, optical brighteners, and deodorizers. Some carpet cleaning products have sanitizers and soil and stain repellents.

Some institutions make available carpet spotting kits for maintenance and housekeeping personnel. Usually carpet spotting kits are carried on housekeeping carts so supplies are readily available when spots occur. Prompt removal of spots maintains the appearance of carpet and also prolongs its life. Training should be provided regarding the proper use of the contents of a carpet spotting kit.

The carpet spotting kit contains chemicals and tools for use in removing spots from carpets. Generally, a carpet spotting kit is contained in a carrying case and includes the following items:

- Soft to medium bristle brush
- Putty knife
- Soft cloths or towels
- White vinegar
- Solvent-based degreaser
- Natural all-purpose cleaner
- Solvent
- Rust remover

"Green" Products

Alternatives to hazardous cleaning chemicals, referred to as "Green" products, were introduced in Chapter Eight. "Green" products are environmentally-preferable products as they are biodegradable and leave little or no remaining residue.

According to results of a study conducted by the Environmental Protection Agency (EPA) the most dangerous cleaning products include acid toilet bowl cleaners; floor finish strippers; heavy-duty, high strength degreasers; sewer drain openers; and oven cleaners. A listing of safer cleaning product alternatives may be found at the following web site: *http://www.cleaningpro.com*

An example of a "Green" cleaning product is a cleaner made from citrus oil (derived from natural orange peel) and hydrogen peroxide (a safer sanitizing and oxidizing agent than chlorine bleach). As the product oxidizes (combines with oxygen), the excess oxygen is released and the only residues left are water and 100% biodegradable surfactants. Sixty-five percent of the product biodegrades into the environment within 28 days. This one concentrate, at four different dilution ratios, replaces over 26 common cleaning products including the following:

- ammonia
- bleach
- all-purpose cleaners
- carpet bonnet cleaners
- carpet extraction cleaners
- carpet shampoos
- carpet spotters and stain removers
- deodorizing liquids
- glass cleaners
- heavy-duty degreasers
- odor eliminators
- sanitizers
- spray and wipe cleaners
- stainless steel cleaners
- tile and grout cleaners
- washroom cleaners

Even more important is that when this product is diluted with water, all of the four finished dilutions remain at a neutral pH 7, thereby not creating any possibility of surface damage. The product cannot harm the applicator, damage surfaces, and leaves no chemical residues at the proper dilution on surfaces. Additionally, there are no irritating chemical fumes or odors and its usage has little or no effect on air quality.

The EPA is conducting further studies in an effort to reduce the use of hazardous cleaning chemicals due to the resulting pollution and workplace injuries caused to housekeeping and institutional maintenance workers. Continuing research will, most likely, result in more available "Green" products.

◆ Essential Questions: ◆ Housekeeping Equipment – Chemical

1. Why is it important for institutional maintenance employees to be able to identify surface materials?
2. What are examples of results from incorrect use of cleaning supplies?
3. What is meant by the term "cost-effectiveness" when applied to chemical supplies?
4. How do soaps and detergents differ?
5. How do cationic, anionic, and non-ionic surfactants differ?
6. In what situations are acid cleaners, solvent cleaners, and abrasive cleaners used?
7. What are the benefits of metal polish?
8. In what situations are paste furniture polishes and cleaners used? Cream? Liquid? Spray and aerosol?
9. Why are polymer floor finishes no longer used?
10. What supplies are usually contained in a carpet spotting kit?

Chapter Highlights

- ☆ Institutional maintenance equipment and supplies should be selected based on safety, ease of use, performance, cost-effectiveness, availability of safety information, ability of employees to use the equipment and supplies properly, and amount of training required.

- ☆ Small equipment commonly used by housekeepers includes such items as carpet sweepers, dust mops, wet mops, mop buckets/wringers, squeegees, and sponges.

- ☆ Institutional maintenance employees use a variety of brushes, such as push brooms, toilet brushes, fountain brushes, and scrub brushes.

- ☆ Examples of large housekeeping equipment used in institutions include such items as housekeeping carts, trash containers, rotary floor machines, extraction machines, and wall-washing machines.

- ☆ Types of vacuum cleaners used in institutions include space vacuums, riding vacuums, built-in vacuums, wet/dry vacuums, backpack vacuums, electric brooms, hand vacuums, and built-in cart vacuums.

- ☆ Robots with the capability to deliver meals, vacuum floors, monitor facilities, and transport supplies and equipment may soon be used in the field of institutional maintenance.

- ☆ In order to avoid damage to surfaces, institutional maintenance employees should be familiar with different types of surfaces, understand the components of cleaning products, and receive proper training in the use of cleaning products.

- ☆ Housekeeping supplies used in the field of institutional maintenance include soaps, acid cleaners, disinfectants, polishes, finish strippers, and carpet spotting kits.

- ☆ In order to clean more effectively, detergents contain surfactants that are cationic, anionic, or nonionic.

Chapter 11

Hard-Surface and Soft-Surface Floor Care Procedures

Chapter Focus

The following Essential Knowledge and Skills are discussed in this chapter:

7A Develop guidelines for selecting equipment, supplies, and procedures for assigned tasks.

7B Apply appropriate procedures while operating equipment and using tools and products in the performance of assigned tasks.

7D Describe appropriate procedures for completing a variety of tasks involved in institutional maintenance.

Chapter Vocabulary

bonnet method
buffing
dry extraction
foam cleaning
project cleaning
stripping
vacuuming

Read chapter sections for additional terms related to hard-surface floors, hard-surface floor care, and soft-surface floor care.

Institutional maintenance employees can move from commercial, medical, hospitality, educational, or industrial settings with only minor changes in technical knowledge required. Maintenance concepts and skills are similar in all settings. Once a housekeeping or maintenance procedure, system, or technique is learned, it may be modified to fit a specific type or size of operation. Each housekeeping and maintenance department develops its own cleaning procedures based on experiences and preferences of the executive housekeeper or manager, industry research, and availability of equipment, supplies, and workers.

Some maintenance procedures are used daily by institutions while others are used for project cleaning. ***Project cleaning*** refers to cleaning that is not routine or part of a daily routine. Project cleaning requires special staff or special training and extensive use of equip-

BEST COPY AVAILABLE

ment, staff, and time. Examples of project cleaning include stripping and refinishing floors, washing chandeliers, and shampooing upholstery.

HARD-SURFACE FLOOR CARE

Floor care or maintenance is a major responsibility of housekeeping and maintenance personnel. Floors are maintained so they will be comfortable and safe. Properly maintained floors make it easier for individuals to accomplish activities in buildings. In addition, proper floor care protects floor surfaces from damage, prolongs the lives of floors, and makes buildings more attractive.

The amount of time and effort involved in cleaning a floor is determined by the type and age of the soil on the floor and the type of floor. Dry dust can be removed by sweeping, dust mopping, or vacuuming. When dust absorbs moisture from the air or becomes mixed with oils, it becomes a bonded soil, and removing it becomes a more difficult task. The longer soil is left undisturbed, the more difficult it is to remove. The use of proper floor finish and care decreases the amount of soil that becomes bonded to floor surfaces.

Institutional maintenance employees spend over half of their time caring for floors. Floor care has become a more complex task because of the wide variety of floor coverings and floor care chemicals available. Institutions contain numerous kinds of floor coverings. Housekeeping employees must become familiar with basic flooring types and with general steps to follow in caring for them. Table 11.1 provides some commonly found floor finishes and suggestions for general care procedures.

Clean floors are attractive and give an institution a sparkling appearance. As people enter a building, the floor is what they first notice. Evaluations of an institution are often based on a first impression of a floor. So, the floor surfaces are perceived as indications of the cleanliness of the building.

Floor care is more expensive than other maintenance tasks, takes the longest time, and uses the greatest amount of staff labor. However, proper floor care improves safety, assists in infection control, and boosts staff morale.

In order to provide safe walkways, maintenance employees must keep floors free of moisture and dirt. When loose dirt is walked on, surface abrasion occurs and damages the surface of a floor. Removal of loose dirt by sweeping helps prevent surface abrasion. In addition, walk-off mats can be placed at building entrances to control dirt. ***Walk-off mats*** remove dirt from shoes and trap the dirt within the mat. The dirt remains trapped within the mat rather than tracked on floors throughout an institution.

Many spilled substances become more difficult to remove when they are allowed to remain on floors for prolonged periods of time. It is important to clean up spills immediately in order to maintain the appearance of floors and help floors wear longer. A proper floor care program ensures shiny hard-surface floors that are not slippery.

◆ *Essential Questions:* ◆ *Hard-Surface Floor Care*

1. Why do housekeeping and maintenance departments place emphasis on proper maintenance of hard-surface floors?
2. What are some methods used to clean hard-surface floors?

Floor Care

Floor Finishes	Care Required
Terrazzo – looks similar to marble but is less expensive. Consists of small chips of marble set in cement and polished.	Daily dusting will remove harmful sand and grit that will wear down the surface. Dust mops should not be oil treated as the oil will damage the flooring. Scrub with detergent solution; rinse and mop dry. An acrylic sealer may be applied to heavy traffic areas.
Ceramic Tile – tiles made from a mixture of clay and water which has been baked at a high temperature. Ceramic floor tiles are not glazed as the glazing creates a slippery, dangerous surface. The tiles are impermeable (puncture proof), so they are very hygienic.	Sweep with soft brush. Wash with detergent solution leaving suds on long enough to loosen soil. Mop. Rinse with clean, warm water. Mop dry.
Bitumastic/Asphalt Tile – Bitumen is derived from petroleum. Asphalt consists of bitumen and minerals. These two materials are mixed with grit or limestone to make tiles that are strong and durable. Asphalt tile is fire resistant.	Sweep with a soft brush. Mop with clean, lukewarm water and mild detergent. Do not allow water to stand on tiles as the water will cause the tiles to curl and loosen. Do not use solvent-type cleansers as these substances will damage the tiles.
Rubber Tile – made from a combination of natural and synthetic rubber. Immune to mold growth, bacterial decay, and pest infestation.	Sweep with a soft brush. Mop with clean, lukewarm water. If soil is not removed, use a small amount of ammonia or non-fat synthetic cleanser. Mop a small section at a time, rinse, dry, and buff thoroughly. The more often the floor is buffed, the less often washing will be required. Caution: solvent-based products will cause the flooring to stretch and swell.
Vinyl Tile – types of vinyl tiles include vinyl composition tiles, homogeneous or flexible vinyl tiles, and laminated vinyl flooring. Laminated vinyl flooring is less expensive than the other listed tiles; however, replacement may be required as often as every three years.	Daily dusting to remove sand and grit is extremely important to avoid scratching, which can damage the vinyl tile surface. Sweep with a soft brush. Wash with ordinary cleaning solutions. Rinse and mop dry.
Wood – oak is most commonly used. Extremely durable when properly finished and maintained. Most wood flooring receives a factory-applied finish to seal the wood.	Dusting, vacuuming, and a light damp mopping are all that is necessary to maintain a wood floor on a daily basis. Do not use an oil treated mop as the oil may darken or stain the floor.
Carpet – nylon is the most widely used carpet fiber. Nylon fibers produce carpets that are durable, fairly soil-resistant, and easy to clean.	Vacuum daily. Remove spots immediately. Deep cleaning by shampooing should be done when carpeting shows signs of color loss, staining, flattening of pile, and strong odor or mustiness.

Table 11.1

BEST COPY AVAILABLE

SWEEPING AND MOPPING PROCEDURES

Sweeping

Sweeping is the first step in hard-surface floor care. A broom or push broom is used to remove large trash and litter items from floors. Sweeping should be completed prior to dust mopping. Sweeping is necessary if dirt is mixed with litter or if a floor surface is too uneven for dust mopping. If an area is lightly littered, cleanup may be performed using a toy broom and dustpan. An example of a procedure to follow when sweeping is shown in Figure 11.1.

Mopping

Dust Mopping. Dust control is a major part of the maintenance of an institution or building. The maintenance staff may use as much as two-thirds of their work time controlling dust. ***Dust mopping*** removes approximately 90 percent of the soil found on most hard-surface floors. When done properly, dust mopping can decrease the amount of time required for other floor maintenance procedures.

Dust mopping should be performed daily to maintain attractive floor surfaces and prevent damage to floor finishes. Dust mopping should always be performed before wet mopping or damp mopping. Various sizes of dust mops should be available in order to provide effective dust control throughout an institution. An example of a procedure for dust mopping is shown in Figure 11.2.

Sweeping Procedure

Equipment and Supplies

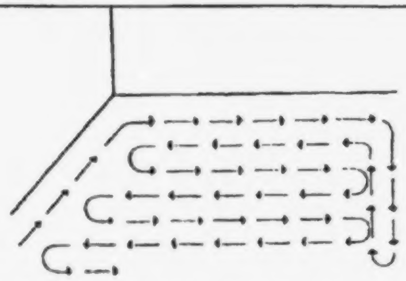
- Floor broom or long-handled push broom
- Dustpan with a ridged edge
- Short-handled, soft-bristled brush
- Trash container or bag

Procedure

- Choose the largest broom appropriate for the size of the area being swept.
- *In a congested room* , begin sweeping at the back of the room using a floor broom or a small push broom. Work in a forward direction. Sweep litter and dirt to the aisles using long, even strokes. Follow each stroke with straight, overlapping lines.
- Remove dust from corners by using a floor broom turned sideways.
- Gather litter and dirt frequently using the dustpan. Deposit the litter in a trash container or bag.
- *In an open area* , use a push broom to begin sweeping at one end. Move to the other end of the area using a push and pickup motion.
- Clean corners and edges with a floor broom or a short-handled brush.
- Remove litter or strings from the broom bristles after sweeping. Wash the broom in a germicidal solution if it becomes soiled and hang to dry.
- Wipe the handle and block of the broom with a damp cloth. Wash the dustpan as needed.
- Store brooms in a hanging position with the bristles down.

Figure 11.1

Dust Mopping Procedure



Equipment and Supplies

- Treated dust mop
- Lobby dustpan
- Toy broom
- Putty knife
- Trash container

Procedure

- Place the mop on newspaper or on a flat cardboard surface to allow treatment to be absorbed if the mop seems to contain excess treatment.
- Use the largest dust mop efficient for the size of the area being mopped. A twelve-inch or eighteen-inch dust mop is appropriate for maneuvering in small areas and around furniture. Corridors and open areas may require a dust mop as wide as seventy-two inches for efficient mopping.
- Begin mopping at one end of an area or at the corner opposite from the door. Push the mop straight ahead and move from one end of the room or area to another, making a U-turn at the end. In narrow areas, an S-curve pattern can be used. Move the mop from side-to-side while moving ahead.
- Use the swivel head of the dust mop in congested areas to move easily around furniture or obstacles. Move furniture as needed but return it to the correct positions.
- Keep the mop head in contact with the floor at all times. Do not pick up the mop head except to unload it. Do not use a back and forth motion. Always keep the mop moving ahead.
- Unload the dust mop at regular intervals (usually every 1,000 square feet or when filled with dirt). Mop dirt to an area away from traffic lanes. Lift the mop about six inches from the floor and shake firmly to release dirt. Do not attempt to loosen dirt by hitting the mop handle or head against another object since this can damage the mop. Unload the mop at the same location each time.
- Sweep up unloaded dirt with a floor broom and dustpan after mopping is completed. Deposit dirt in a trash container. Do not attempt to use the dust mop to push the pile of dirt to another area. When dust mops are used to move large piles of dirt, streams of dirt usually trail behind.
- Use a putty knife to remove gum from floors as necessary.
- Use a stiff, plastic brush to brush the mop head and remove dirt buildup daily or as needed. Small litter left in the mop head will keep it from performing effectively. The mop head can also be vacuumed daily to remove dirt.
- Apply dust mop treatment after brushing or vacuuming the dust mop. Do not overload the mop with treatment as this will cause streaked or slippery floors.
- Store the treated dust mop by hanging it in an area where people will not brush against it. The mop head should hang down and face away from the wall.

Figure 11.2

Damp Mopping. ***Damp mopping*** removes light soil that cannot be removed by dust mopping. A wet mop is dipped in cleaning solution with excess solution removed by wringing or squeezing. When it is not necessary to mop an entire floor, soiled areas can be damp mopped. This is known as ***spot mopping*** or ***track mopping***. An example of a procedure to follow when damp mopping is shown in Figure 11.3.

Wet Mopping. ***Wet mopping*** removes heavy soil from floors. String mops are used for wet mopping. Wet mopping is also used to disinfect areas. An example of a procedure to follow when wet mopping is shown in Figure 11.4.

◆ Essential Questions: ◆ Sweeping and Mopping Procedures

1. What purpose do sweeping and dust mopping serve?
2. How does damp mopping differ from wet mopping?

Damp Mopping Procedure

Equipment and Supplies

- Safety signs
- Clean and treated dust mop
- Clean double bucket mop system
- Clean mop and handle
- Approved detergent solution appropriate to area
- Dust pan and brush

Procedure

- Remove any walk-in mats.
- Dust mop area with treated dust mop.
- Mix cleaning solution according to directions in one bucket of a double bucket system. Fill the second with clean rinse water.
- Dip the mop head into the cleaning solution. Use the wringer to tightly squeeze excess solution from the mop head. Repeat the wringing procedure until the mop is damp and no solution drips from it.
- Apply the solution to the floor by first mopping the outside perimeter of the area. Mop the inside area with even figure-eight or S-curve movements. Use small motions, reaching no more than three to four feet in any direction. Little water should be left on the floor. Generally, work backward toward the mop buckets.
- Slowly dip the mop holding the solution into the rinse water if rinsing is necessary. (Clear water or a light detergent solution that does not require rinsing are often used to damp mop.) Wring the mop out thoroughly in the rinse bucket. Using a separate mop to rinse provides more effective results.
- Rinse the mop in clear water before dipping in the cleaning solution again when damp mopping large areas.
- Change solution and rinse water when they become dirty or after mopping every third room in a health care facility.

Figure 11.3

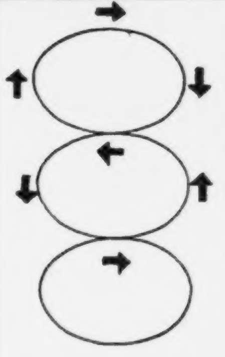
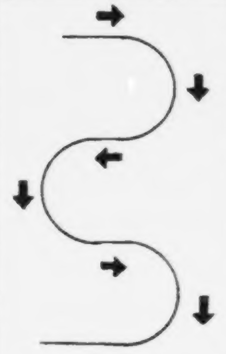


figure-eight

Wet Mopping Procedure

Equipment and Supplies

- Safety signs
- Lobby dustpan and toy broom
- Putty knife
- Treated dust mop
- Disinfectant cleaner
- Double bucket mop system
- Two wet mops
- Wet/dry vacuum with squeegee tool



S-curve

Procedure

- Place safety signs in mopping area.
- Dust mop floor following proper procedures.
- Mix the cleaning solution according to manufacturer's directions in one bucket of a double bucket system. Fill the second bucket with clear water. Using two mops and two buckets provides a cleaner wet mopping operation.
- Soak one mop in the cleaning solution until completely saturated.
- Wring out the mop so solution does not run. The mop should be used like a paint brush to apply the solution.
- Move to the outside perimeter of the area and mop along baseboards and in corners. The conventional floor mop or a special baseboard mop can be used for this step.
- Apply solution to the inner area using a figure-eight or S-curve movement. Move backwards toward the mop buckets. Remove black marks with the heel of the mop or with a plastic scraper attached to the mop. A push-pull movement is used only when removing black marks or in very congested areas where wider movements are not practical. The floor should appear very wet.
- Allow the solution to remain on the floor the required amount of time. The longer the solution remains on the floor, the greater the disinfecting and dirt removal power. The danger of removing floor finish is greater the longer solution remains on the floor. Read instructions to determine how long to leave solution in order to obtain effective results without damaging the floor. Reapply solution if it begins to dry before the required amount of time has elapsed.
- Remove solution from the floor with a second mop dipped in clear water and squeezed until damp. A wet/dry vacuum can also be used to remove solution from the floor. Following the wet/dry vacuum, rinse the floor with a damp mop dipped in clear water. It is important to rinse floors thoroughly since detergent solution left on floors can cause floors to become dull and slippery.
- Change solutions when they become dirty. Except in frequently soiled areas, daily wet mopping can usually be performed with clear water.
- Begin at the top and work toward the bottom when mopping stairways. Place safety signs at the top and bottom of the stairs. Keep mop buckets at the bottom of the stairs.
- Do not allow solution to run under doors or into other areas. Block the bottoms of doors with folded towels.
- Clean equipment after use. Rinse buckets and wringers and turn upside down to dry. If this is not possible, dry the bucket and wringer as thoroughly as possible. Never leave solution in a bucket for long periods of time. Thoroughly rinse mops and hang to dry. Mop heads should hang down, and they should not touch walls or the floor. If a wet/dry vacuum was used, clean the canister, outside of the vacuum, hose, and squeegee before storing.

Figure 11.4

BEST COPY AVAILABLE

STRIPPING, SEALING, AND BUFFING PROCEDURES

Stripping

Stripping is the process of removing old floor finish and all the dirt that is embedded in the finish. When floors are properly maintained, stripping may need to be done only every few years. Four reasons for stripping an old finish are listed in Figure 11.5.

Stripping is a time-consuming process and should be done with minimal traffic interference. In some schools, the floors are stripped annually during summer vacations. Institutions that close at night or on weekends often plan for stripping to be done then. Institutions that are open around the clock must carefully plan stripping procedures in order to provide minimum interference with normal operations and maximum safety for traffic.

Four Reasons for Stripping Old Floor Finish

1. The floor finish in traffic areas has been worn away and the bare floor is showing through the old finish.
2. There is a noticeable flaking or chipping of the old finish.
3. The "wet look" finish shows definite signs of discoloration or "shiny dirt."
4. There is a staining of spills, or cleaning solutions prove inadequate for the amount of ground-in dirt.

Figure 11.5

Sealing

Floor finishes or sealers are designed to serve three purposes:

- To protect the floor from wear and staining caused by traffic, spills, and chemicals used in cleaning solutions.
- To make the floor more slip resistant and, thereby, safer for customers and employees.
- To provide the floor with a nice shine, giving a positive impression to customers.

Floor finishes or sealers must be applied to clean floors only. Finishes or sealers should be used in small amounts because heavy coats become sticky and gummy and may cause slippery floors. In addition, heavy coats of finish cause floors to be easily soiled since the finish dries on the surface but remains soft underneath. Floors with thin coats of finish or sealer have a hard, nonslippery finish and are not easily soiled. An example of a procedure to follow when finishing floors is shown in Figure 11.6.

Buffing

Buffing is a process in which a rotary floor machine and a pad or brush are used to polish floor finish to a high shine. ***Burnishing*** is also a type of buffing. Burnishing is done with a different type rotary floor machine. This floor machine places less weight on the floor allowing the pad or brush to revolve at a higher rate of speed. Both buffing and burnishing produce a long-lasting, nonslippery finish. However, burnishing creates the "wet look" floor finish that is currently popular.

Spray buffing is a technique used in floor maintenance. This technique is used to maintain a floor finish and repair worn areas. A spray buffing solution consists of a mixture of a small amount of detergent and floor finish appropriate for the floor. The solution is sprayed onto the floor, and a rotary floor machine is used to shine the finish.

Buffing can entrap dirt on floors and cause the finish to discolor and wear. Therefore, floors should be dust mopped or wet mopped before being buffed. An example of a procedure to follow when buffing floors is shown in Figure 11.7.

Floor Finishing/Sealing Procedure

Equipment and Supplies

- Safety signs
- Floor finish/sealing solution
- Clean mop bucket with wringer
- Clean mop
- Rotary floor machine

Procedure

- Place safety signs in work area.
- Inspect the floor to make sure it is dry and clean following the stripping operation. No dusty white residue should appear when the floor is wiped with the hand. If residue appears, rinse the floor again.
- Rinse the mop in clear water and wring thoroughly.
- Dip mop in the floor finish solution and press lightly to remove excess.
- Begin application next to the baseboard. A separate applicator can be used to apply floor finish or sealer to baseboards.
- Mop the remaining area using an S-curve or figure-eight stroke. Use an adequate amount of floor finish to assure a smooth, even coat. It is better to apply several thin coats rather than a single, heavy coat.
- Follow finish instructions regarding drying and buffing procedures. Some floor finishes are buffed while still damp, while others require thorough drying before being buffed. Use a rotary floor machine and appropriate pad to buff the floor to a wet-look shine.
- Apply additional thin coats of finish to achieve an even look. Buff and dust mop after each coat. Allow proper drying time between coats.
- Clean equipment and store properly.

Figure 11.6

Floor Buffing Procedure

Equipment and Supplies

- Safety signs
- Clean dust mop
- Clean dust pan and brush
- Clean wet mop
- Clean mop bucket with clean wringer
- Spray buffing solution in trigger spray bottle
- Rotary floor machine with pad drive assembly or brush
- Clean floor polish pads or brushes

Procedure

- Place safety signs where appropriate.
- Dust mop and damp or wet mop the area to attain a clean floor before buffing.
- Spray a light mist of buffing solution over a designated area. An area ten feet by ten feet is recommended. Avoid overspraying as this causes heavy buildup on rotary floor machine pads.
- Attach a pad suitable for buffing to the rotary floor machine. Work away from the outlet. The machine cord should be placed over the shoulder to keep it out of the path of the machine. Work the machine from side-to-side in an arc. On wood floors, the machine is usually guided following the grain of the wood.
- Buff the sprayed area with the rotary floor machine until the finish is dry. Low-speed machines take longer to buff the finish to a high shine.
- Replace the pads when they become coated with buffing solution. The pads can be turned over so that both sides are used. Always unplug the floor machine when replacing pads.
- Dust mop after buffing to remove any dust deposited as a result of the buffing process.
- Clean all equipment and store properly.

Figure 11.7

◆ ***Essential Questions:*** ◆
Stripping, Sealing, and Buffing Procedures

1. What are reasons for stripping old floor finish?
2. Why are finishes and sealers applied to floors?
3. How do burnishing and spray buffing differ?

SOFT-SURFACE FLOORS

Carpets and rugs add to the beauty and comfort of an institution. Carpets are easier to maintain than hard-surface floors, but they do not wear as long as properly cared for hard-surface floors. However, advances in carpet manufacturing, such as soil and stain resistance, colorfastness, and new weaves, have increased the lives of carpets. Some benefits to installing carpets rather than hard-surface floors are listed:

- Carpets prevent slipping.
- Carpets provide additional insulation during the winter months and can help in reducing heating cost.
- The acoustical properties of carpets can help to lower noise levels.
- Carpets are the most resilient of all floor coverings, making them more comfortable for people who must stand for long periods of time.

Housekeeping and maintenance employees can more effectively clean carpets if they understand how dirt settles in carpet. Soil build up occurs at three levels. These levels are described below:

1. Top level includes light soils, dust, gummy sugars, and oily soils.
2. Middle level includes heavier particles of dust.
3. Bottom level includes sand and grit.

Surface litter stays on top of carpet fibers and is easy to remove. Surface litter may include strings, paper, and pins, in addition to the dust and soil. Light dust settles further down into the carpet fibers, but it can be removed easily with a vacuum. Gritty dirt settles at the base or bottom of the carpet fibers. As pressure from footsteps is applied, the sharp edges of the dirt cause the carpet fibers to wear. Gritty dirt is difficult to remove because carpet grease mixes with the dirt and holds it tightly to the carpet fibers.

Daily vacuuming with a carpet sweeper or vacuum cleaner and thorough weekly vacuuming help carpets maintain their appearance for many years. Vacuuming, however, does not remove all dust and dirt from carpets. Shampooing is necessary to remove deep soil and prolong the life of carpet. Shampooing should be done on a regular basis with the frequency determined by the amount of traffic and the use a carpet receives. Prompt removal of spots or spills is also important in properly maintaining carpet.

◆ ***Essential Questions:*** ◆
Soft-Surface Floors

1. What are some benefits to installing carpets instead of hard-surface flooring?
2. What three levels of dirt collect in carpets?
3. What purposes do vacumming and shampooing serve in proper carpet maintenance?

Stain Removal for Carpets

Spotting Solution Suggestions:

- detergent solution - 2 teaspoons liquid or powder detergent to 2 cups warm water
- ammonia solution - 2 tablespoons ammonia to 1 cup water
- white vinegar (or acetic acid) solution - 2/3 cup white vinegar to 1 1/3 cups water

Spotting Recommendations:

Beer

Blot up excess, sponge with detergent solution, blot with cloth, and sponge with water. If traces remain, sponge with white vinegar solution and blot with cloth. If traces still remain, sponge with dry-cleaning solvent.

Blood

Blot up excess, sponge with cold water, blot with cloth, sponge with detergent solution, blot with cloth, sponge with water, and blot with cloth. Repeat if necessary.

Butter

Scrape and blot up excess, sponge with dry-cleaning solvent, and blot with cloth. If traces remain, sponge with detergent solution, blot with cloth, and sponge with water. If traces still remain, sponge with white vinegar.

Candle Wax

Scrape up excess, blot with dry-cleaning solvent, and blot with cloth. If traces remain, sponge with detergent solution, blot with cloth, sponge with water, and blot with cloth. Repeat if necessary.

Candy

Scrape up excess, sponge with detergent solution, blot with cloth, sponge with water, and blot with cloth. If stain persists, sponge with dry-cleaning solvent and blot with cloth.

Catsup

Scrape up excess, sponge with detergent solution, blot with cloth, sponge with water, and blot with cloth. Repeat if necessary. If traces remain, sponge with ammonia solution, blot with cloth, sponge with water, and blot with cloth.

Chocolate Milk or Cocoa

Blot up excess, sponge with detergent solution, blot with cloth, sponge with water, and blot with cloth. If stain persists, apply ammonia solution, sponge with water, and blot with cloth. If stain still persists, apply white vinegar solution, sponge with water, and blot with cloth.

Coffee

Blot up excess, sponge with detergent solution, blot with cloth, sponge with water, and blot with cloth. If stain persists, sponge with dry-cleaning solvent.

Coffee with Cream & Sugar

Blot up excess, sponge with detergent solution, blot with cloth, sponge with water, and blot with cloth. If stain persists, sponge with white vinegar solution, blot with cloth, and sponge with water. If stain still persists, sponge with detergent solution again.

Cola

Blot up excess, sponge with detergent solution, and blot with cloth. Repeat if necessary. If stain persists, apply ammonia solution and blot with cloth. If stain still persists, apply white vinegar solution and blot with cloth.

Crayon

Scrape up excess, sponge with white vinegar solution, and blot with cloth. If stain persists, sponge with dry-cleaning solvent. If stain still persists, sponge with detergent solution, blot with cloth, and sponge with water.

Egg

Scrape or blot up excess, sponge with detergent solution, blot with cloth, sponge with water, and blot with cloth. If stain persists, sponge with ammonia solution, blot with cloth, and sponge with water. If stain still persists, sponge with detergent solution again, blot with cloth, and sponge with water. If stain still persists, sponge with dry-cleaning solvent.

Food (General)

Scrape or blot up excess, sponge with detergent solution, blot with cloth, sponge with water, and blot with cloth. If traces remain, sponge with dry-cleaning solvent and blot with cloth.

Food (Greasy)

Scrape or blot up excess, sponge with dry-cleaning solvent, and blot with cloth. Sponge with detergent solution, blot with cloth, and sponge with water. Repeat if necessary.

Fruit Juice

Blot up excess, sponge with detergent solution, blot with cloth, sponge with water, and blot with cloth. If stain persists, sponge with ammonia solution. If stain still persists, sponge with white vinegar solution.

Furniture Polish

Blot up excess, sponge with dry-cleaning solvent, and blot with cloth.

Glue (Plastic Base)

Scrape or blot up excess, sponge with detergent solution, blot with cloth, and sponge with water. If stain persists, sponge with white vinegar solution, blot with cloth, and sponge with water.

Table 11.2 *(continued on page 174)*

BEST COPY AVAILABLE

Grease
Scrape up excess, sponge with dry-cleaning solvent, and blot with cloth.

Gum
Scrape up excess (may be easier if chilled first with ice cube or aerosol gum remover), sponge with dry-cleaning solvent, and blot with cloth. Repeat if necessary.

Ice Cream
Scrape or blot up excess, sponge with detergent solution, blot with cloth, sponge with water, and blot with cloth. If traces remain, sponge with ammonia solution, blot with cloth, and sponge with water. If traces still remain, sponge with white vinegar, blot with cloth, and sponge with water. If traces still remain, sponge again with detergent solution.

Ink
Blot up excess, sponge with detergent solution, blot with cloth, sponge with water, and blot with cloth. If traces remain, sponge with ammonia solution, blot with cloth, sponge with water, and blot with cloth.

Iodine (Tincture)
Blot up excess, sponge with detergent solution, and blot with cloth. If stain persists, sponge with dry-cleaning solvent, blot with cloth, sponge with water, and blot with cloth. If stain still persists, sponge with white vinegar solution, blot with cloth, sponge with water, and blot with cloth.

Lipstick
Scrape up excess, sponge with white vinegar solution or detergent solution, blot with cloth, sponge with water, and blot with cloth. If stain remains, sponge with dry-cleaning solvent.

Liquor
Blot up excess, sponge with detergent solution, blot with cloth, sponge with water, and blot with cloth. If stain persists, sponge with white vinegar solution and blot with cloth. Repeat if necessary.

Mustard
Scrape up excess, sponge with detergent solution, blot with cloth, sponge with water, and blot with cloth. Repeat if necessary. If traces remain, sponge with white vinegar solution, blot with cloth, sponge with water, and blot with cloth. If stain still persists, sponge again with detergent solution, blot with cloth, and sponge with water.

Nail Polish
Scrape or blot up excess, sponge with white vinegar solution, and blot with cloth. If stain persists, sponge with nail polish remover or acetone, blot with cloth, sponge with water, and blot with cloth. If stain still persists, sponge with detergent solution, blot with cloth, and sponge with water. If traces remain, sponge with ammonia solution.

Paint (Latex)
Scrape or blot up excess, sponge with detergent solution, blot with cloth, sponge with water, and blot with cloth. If traces remain, sponge with ammonia solution, blot with cloth, and sponge with water. If paint has dried, professional attention is recommended. However, a paste-type paint remover followed by dry-cleaning solvent and then detergent can be tried.

Rust
Scrape up excess, sponge with detergent solution, blot with cloth, and sponge with water. Repeat if necessary. If stain is old, professional attention may be necessary.

Salad Dressing
Blot up excess, sponge with dry-cleaning solvent, and blot with cloth. If stain persists, sponge with detergent solution, blot with cloth, sponge with water, and blot with cloth. If stain still persists, sponge with white vinegar solution, blot with cloth, and sponge with water.

Shoe Polish
Blot up excess, sponge with dry-cleaning solvent, blot with cloth, sponge with water, and blot with cloth. If trace still persists, sponge with non-oily paint remover, blot with cloth, sponge with water, and blot with cloth. If stain still persists, sponge with dry-cleaning solvent again, and then try detergent solution.

Tea
Blot up excess, sponge with detergent solution, blot with cloth, sponge with water, blot with cloth, sponge with white vinegar solution, and blot with cloth.

Urine
Blot up excess, sponge with detergent solution, blot with cloth, and sponge with water. Sponge with ammonia solution and blot with cloth. If stain persists, sponge with white vinegar solution, blot with cloth, and sponge with water.

Vomit
Scrape and blot up excess, sponge with detergent solution, blot with cloth, sponge with water, and blot with cloth. Repeat if necessary.

Water Color Paints
Blot up excess, sponge with detergent solution, blot with cloth, and sponge with water.

Source: *Custodial Technician Handbook I: Basic Cleaning Procedures in Custodial/Housekeeping Operations*. Irvine, California: Cleaning Management Institute, 1989.

Table 11.2 - Cont'd.

BEST COPY AVAILABLE

STAIN REMOVAL PROCEDURES

Stains on carpets should be removed immediately. Most stains become harder to remove when left untreated for long periods of time. Stain removal should not begin until both the cause of the stain and the type of carpet are determined. Treating a stain without knowing its cause can result in a worse stain.

Procedures for removing specific types of stains are included in Table 11.2. General guidelines to observe when using stain removers include the following:

- Store stain-removing chemicals in a safe area out of the reach of children.
- Read labels and follow directions carefully.
- Do not mix chemicals.
- Use caution in areas near open flames.
- Wear gloves and goggles to protect skin and eyes.
- Use chemicals in a well-ventilated area.
- Close chemicals tightly after use.

◆ ***Essential Questions:*** ◆
Stain Removal Procedures

1. Why should stains be identified before treatment begins?
2. What types of solutions can be prepared to remove stains from carpet?
3. What basic procedure is generally followed when removing stains?

VACUUMING PROCEDURES

Vacuuming is the removing of dust and dirt from carpets or hard-surface floors with a machine. Carpets last longer if they are vacuumed daily to remove dirt that can produce wear on carpet fibers. At least twice a year, area rugs should be rolled up and the undersides vacuumed. In addition, rug pads and the floor beneath rugs should be cleaned.

Upright vacuums effectively remove dirt from carpets. A vacuum should be pushed and pulled over an entire area of carpet. Only two passes over the carpet are necessary. Care should be taken not to vacuum too quickly. The beater brushes and suction need time to perform their job.

For daily vacuuming, furniture should be moved as little as possible. Care should be taken to avoid bumping both the furniture and walls. Vacuum attachments or a backpack vacuum can be used to clean corners, crevices, and obstructed areas. With backpack vacuums, above-floor areas can be dusted at the same time floors are vacuumed. Additionally, floors should be vacuumed after the furniture has been dusted. An example of a procedure to follow for standard vacuuming is shown in Figure 11.8.

◆ ***Essential Questions:*** ◆
Vacuuming Procedures

1. What is the purpose of vacuuming?
2. What are some points to follow when vacuuming?
3. For what types of jobs is a backpack vacuum used?

SHAMPOOING METHODS AND PROCEDURES

Dry Extraction

Dry extraction is the process of cleaning carpet with an absorbent compound. ***Absorbent compound*** is a commercially prepared powder made of absorbent fibrous material, water, a detergent, and a dry solvent. Dry extraction is also known as the ***absorbent compound method.***

Vacuuming Procedure

Equipment and Supplies

- Vacuum

Procedure

- Remove any large pieces of trash or litter.
- Use a backpack vacuum or attachments on an upright vacuum to clean edges near walls and immovable objects, cracks or crevices, and wall carpeting or above floor areas.
- Choose an electrical outlet that allows the greatest amount of floor space to be vacuumed without having to unplug the machine.
- Begin vacuuming at the rear of the room or area. If an upright vacuum is used, move the machine forward and backward within easy-reaching distance taking no more than one step forward. Fan-shaped movements tend to waste time and energy because of overlapped and missed areas. Move gradually from the back of a room to the exit. If a space vacuum is used, move in a straight line. Move up and down the open area the length of the vacuum cord.
- Clean and store equipment properly. Empty the dust collection bag or bin. Remove paper vacuum bags when full. Remove strings or other items caught in the beater bar brushes. Check belts, cords, switches, hoses, and tools before storing. Report needed repairs immediately.
- Observe the following guidelines when vacuuming:
  - — Never pull a plug out of the outlet by the cord. Grasp the plug and pull from the wall.
  - — Practice vacuuming around furniture and fixtures without bumping into them.
  - — Unplug the vacuum before repairing it or attaching tools.
  - — Keep cords near the floor to avoid knocking items off of furniture.

Figure 11.8

Dry Extraction Procedure

Equipment and Supplies

- Safety signs
- Vacuum cleaner
- Stain removal kit
- Absorbent powder compound
- Mechanical compound cleaning machine

Procedure

- Seal off the area to be cleaned and position the safety warning signs.
- Remove furniture from the area to be cleaned. If it is impossible to remove the furniture from the area, place the furniture in the center of the area. Clean the outer areas, replace the furniture, and clean the center area.
- Thoroughly vacuum the area to be cleaned. Vacuum widthwise and lengthwise. Vacuuming loosens soil and opens the carpet pile for cleaning.
- Remove stains from carpet.
- Sprinkle absorbent compound over the carpet in ten-foot by ten-foot sections.
- Use the mechanical compound cleaning machine to work the absorbent compound into the carpet. Move the machine in the direction of the pile. Move the machine over the carpet four times turning 90° after each pass. This method of brushing the carpet places absorbent compound on all sides of the carpet fibers. Soil from all sides of the carpet fibers will then transfer to the absorbent compound.
- Allow the absorbent compound to dry completely. If appropriate, keep the cleaned area sealed off for 24 hours to ensure that the carpet is completely dry.
- When the absorbent compound is dry to the touch, vacuum the carpet. Vacuum widthwise and lengthwise. Vacuuming removes the compound and the soil attached to the compound. The carpet must be vacuumed well in order to remove all excess absorbent compound. Any residue left in the carpet will cause the carpet to become prematurely dirty.

Figure 11.9

Dry extraction effectively cleans the surface of carpet and maintains a uniform appearance. It can be used on a daily basis for cleaning high-traffic areas to remove tracked-in soil. Dry extraction is not suitable for deep-cleaning carpets. Its purpose is to prolong the periods between deep cleaning. This method is suitable also for cleaning delicate carpets that should not be subjected to frequent wet shampooing.

An advantage to using the dry extraction method is that the absorbent compound dries quickly and does not require a highly skilled operator. A disadvantage of this method is that it is not effective in cleaning heavily soiled carpets. An example of a procedure to follow when using the dry extraction method is shown in Figure 11.9.

Foam Cleaning

Foam cleaning is the process of cleaning carpet with foam consisting of a small amount of water mixed with a liquid detergent. A specialized foam-generating machine with rotating brushes is required for foam cleaning. The term ***dry foam*** is also used to refer to foam cleaning.

An advantage to foam cleaning is that large amounts of drying time are not required. This is because the foam cleaning method deposits up to 90 percent less liquid on the carpet than do liquid shampoos. In addition, changes to the texture and color of carpet are minimized.

However, foam cleaning has several disadvantages. Carpet may be rapidly resoiled since foam cleaning does not remove all soil from the carpet. Embedded soil is not affected by foam cleaning. Specialized equipment required for foam cleaning may damage carpet fibers. Furthermore, overwetting of carpet is possible. Overwetting may result in shrinkage of the carpet or staining caused by wet carpet backing. An example of a procedure to follow when using the foam cleaning method is shown in Figure 11.10.

Extraction/Steam Cleaning

The ***extraction*** method of carpet cleaning is also referred to as ***water extraction***, ***hot water extraction***, and ***steam cleaning***. Extraction is performed with an extraction machine. The machine consists of two storage tanks. One tank is filled with the shampoo solution and is used for dispensing the solution into the carpet. The other tank is referred to as the ***recovery tank***. The recovery tank is a storage tank for holding the dirty solution picked up from the carpet.

Although the term ***steam cleaning*** is often used to describe this method of cleaning, no live steam is actually used – only hot or cold water. With extraction, detergent mist is injected under high pressure into the carpet through the use of an extraction machine. The solution and loosened soil are immediately removed from the carpet by a vacuum attached to the extraction machine.

Some advantages of the extraction method are that carpets are thoroughly cleaned leaving little remaining residue, embedded soil is removed, and carpet fibers are not distorted since no brushing occurs. Done correctly, drying time should take only one hour. However, in a humid environment, this approximate drying time may need to be extended.

There are also disadvantages of the extraction method for carpet cleaning. The extraction method requires a skilled operator, because an unskilled operator could overwet the carpet. Overwetting can result in carpet shrinkage and cause carpet seams to split. Also the extraction method is time consuming and requires specialized equipment. An example of a procedure to follow when using the extraction method is shown in Figure 11.11.

Foam Cleaning Procedure

Equipment and Supplies

- Vacuum
- Shampoo solution
- Bucket
- Foam generating machine
- Wet/dry vacuum
- Push broom

Procedure

- Remove furniture from the area to be cleaned. If it is impossible to remove the furniture from the area, place the furniture in the center of the area. Clean the outer areas, replace the furniture, and clean the center area.
- Vacuum the area to be cleaned. Vacuum widthwise and lengthwise. Vacuuming loosens soil and opens the carpet pile for cleaning.
- Remove stains from the carpet.
- Mix the shampoo solution thoroughly in a bucket. Pour the mixture into the foam generating machine. To avoid overwetting the carpet, place the machine on an absorbent pad when filling it.
- Start at the farthest point in the room and move the foam generating machine in straight parallel lines. To avoid streaking, overlap each line. Dispense foam from the machine slowly and evenly. Do not overwet carpet. Complete a twelve-foot by twelve-foot section.
- Use a wet/dry vacuum to remove soiled foam from the carpet. Some foam generating machines contain a built-in vacuum that may be used to remove soiled foam.
- Brush the carpet with a push broom.
- Allow the carpet to dry thoroughly without exposure to traffic. Drying time varies from two to five hours depending upon inside temperature, humidity, and density of the carpet.
- Replace furniture after the carpet is fully dry. If furniture must be replaced before the carpet is fully dry, place the furniture legs on foil covered cardboard squares. This will prevent dye and rust stains from being transferred onto the carpet.

Figure 11.10

Bonnet Method

The ***bonnet method*** is a type of carpet cleaning that uses a standard floor machine equipped with carpet bonnets, bonnet shampoo, a pressure sprayer, clean water, and a bucket and wringer. A ***carpet bonnet*** is an absorbent, circular cloth pad that fits on a rotary floor machine. A bonnet is made of cotton or a cotton blend.

The bonnet method is inexpensive, dries quickly, and does not require a skilled operator. The major disadvantage of the bonnet method is that it is only effective for surface cleaning. Therefore, the bonnet method should be used in addition to regular deep cleaning procedures. An example of a procedure to follow when using the bonnet method is shown in Figure 11.12.

Wet Shampooing

A rotary floor machine is used for ***wet shampooing***. Wet shampooing is also referred to as the ***rotary brush method***. Some experts consider the rotary brush method as causing the most wear to carpet fibers. Special brushes must be used to prevent excess damage to the carpet fibers.

With wet shampooing, a rotary floor machine is equipped with an attached tank containing the liquid shampoo solution and a brush attachment to push shampoo solution into the carpet. The liquid shampoo solution works in the same way as cleaning detergents but with less foam. The rotary brush method penetrates the carpet and loosens the soil. A wet-dry vacuum is used to remove shampoo solution and soil.

BEST COPY AVAILABLE

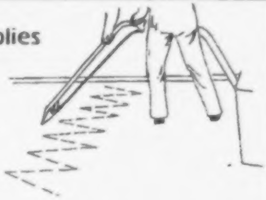
A disadvantage of the rotary brush method is that some types of carpet fibers can be damaged, and dye may run in patterned carpets. The danger also exists of overwetting the carpet, which can result in the following:
- Growth of mold, mildew, and bacteria
- Stretching and shrinking of carpet
- Splitting of carpet seams

Additionally, brushes may damage carpet fibers if the machine is allowed to remain in one spot for too long. The rotary brush method requires a long drying time and a skilled operator. Another disadvantage to this method is that not all dirt is removed from carpets. Therefore, rapid resoiling may occur. An example of a procedure to follow when using the rotary brush method is shown in Figure 11.13.

◆ *Essential Questions: Shampooing Methods and Procedures* ◆

1. How do dry extraction, foam cleaning, and extraction procedures differ?
2. What are the advantages and disadvantages of the bonnet method of carpet cleaning?
3. What are the advantages and disadvantages of the rotary brush method of carpet cleaning?

Extraction Procedure



Equipment and Supplies
- Vacuum
- Carpet shampoo
- Extraction machine
- Antifoam emulsion

Procedure
- Remove furniture from the area to be cleaned. If it is impossible to remove the furniture from the area, place the furniture in the center of the area. Clean the outer areas, replace the furniture, and clean the center area.
- Vacuum the area to be cleaned. Vacuum widthwise and lengthwise. Vacuuming loosens soil and opens the carpet pile for cleaning.
- Remove stains from carpet.
- Mix carpet shampoo and hot water in the dispensing tank of the extraction machine.
- Place antifoam emulsion in the recovery tank. Antifoam emulsion is a substance that minimizes the bubbles and foam created by shampoo residue.
- Dispense the cleaning solution onto the carpet in three-foot overlapping strokes in a pattern resembling the letter M. The wand of the extraction machine should be pulled toward the body when dispensing solution. This allows the vacuum to remove the solution from the carpet immediately after it is dispensed.
- Turn the solution off and slowly go over the cleaned area with the vacuum nozzle. Vacuuming removes additional soil and cleaning solution.
- Allow the carpet to dry thoroughly without exposure to traffic. Drying time varies depending upon inside temperature, humidity, and density of the carpet.
- Replace furniture after the carpet is fully dry. If furniture must be replaced before the carpet is fully dry, place the furniture legs on foil covered cardboard squares. This will prevent dye and rust stains from being transferred onto the carpet.

Figure 11.11

Bonnet Method Procedure

Equipment and Supplies

- Safety signs
- Vacuum cleaner
- Bonnet shampoo
- Bucket with wringer attachment
- Pressure sprayer
- Large bucket for mixing shampoo
- Carpet bonnets
- Standard rotary floor machine

Procedure

- Seal off area to be cleaned and position the safety warning signs.
- Remove furniture from the area to be cleaned. If it is impossible to remove the furniture from the area, place the furniture in the center of the area. Clean the outer areas, replace the furniture, and clean the center area.
- Vacuum the area to be cleaned. Vacuum widthwise and lengthwise. Vacuuming loosens soil and opens the carpet pile for cleaning.
- Mix the bonnet shampoo in a large bucket.
- Pour the solution into a pressure sprayer.
- Use the pressure sprayer to apply the solution to a four-foot by eight-foot section of carpet. Do not overwet the carpet. Spray the bonnet with the solution as well.
- Move the rotary floor machine widthwise and lengthwise across the area sprayed with solution. When one side of the bonnet becomes soiled, the other side may be used. When cleaning large areas, several bonnets may need to be used.
- Repeat this procedure until the entire area is cleaned.
- Allow the carpet to dry thoroughly without exposure to traffic. Drying time is approximately one to two hours.
- Replace furniture after the carpet is fully dry. If furniture must be replaced before the carpet is fully dry, place the furniture legs on foil covered cardboard squares. This will prevent dye and rust stains from being transferred onto the clean carpet.

Figure 11.12

Rotary Brush Procedure

Equipment and Supplies

- Safety signs
- Vacuum cleaner
- Carpet shampoo
- Bucket
- Rotary floor machine with brush attachment
- Wet/dry vacuum

Procedure

- Seal off the area to be cleaned and position the safety warning signs.
- Remove furniture from the area to be cleaned. If it is impossible to remove the furniture from the area, place the furniture in the center of the area. Clean the outer areas, replace the furniture, and clean the center area.
- Vacuum the area to be cleaned. Vacuum widthwise and lengthwise. Vacuuming loosens soil and opens the carpet pile for cleaning.
- Mix the carpet shampoo in a large bucket.
- Pour the solution into the tank on the rotary brush floor machine.
- Move the rotary floor machine rapidly in overlapping circular strokes while dispensing the shampoo solution. Dispense the solution on four-foot by four-foot sections of carpet.
- Turn the solution off and continue to move the rotary brush floor machine over the same area until the solution is thoroughly worked into the carpet and no suds appear on the carpet.
- Use a wet/dry vacuum to remove soil and shampoo solution.
- Allow the carpet to dry thoroughly without exposure to traffic.
- Vacuum carpet and replace furniture after the carpet is fully dry. If furniture must be replaced before the carpet is fully dry, place the furniture legs on foil covered cardboard squares. This will prevent dye and rust stains from being transferred onto the carpet.

Figure 11.13

BEST COPY AVAILABLE

Chapter Highlights

- Proper hard-surface floor care protects floor surfaces from damage, prolongs the lives of floors, makes buildings more attractive, improves safety, and assists in infection control.
- The primary goal of hard-surface floor care is to keep floors free of moisture and dirt through sweeping, dust mopping, damp mopping, wet mopping, stripping, finishing, and buffing.
- The purpose of carpet cleaning is to prolong the life of carpet by removing surface litter, light dust, gritty dirt, and carpet grease.
- A detergent solution, ammonia solution, or white vinegar solution can be used to effectively remove a wide variety of stains from carpets.
- Surface litter and light dust can be effectively removed from carpets by vacuuming, dry extraction, or the bonnet method.
- Foam cleaning and the rotary brush method are suitable methods for cleaning carpet although they do not remove embedded soil. Embedded soil is removed by extraction.

Chapter 12

Above-Floor Care Procedures

Chapter Focus

The following Essential Knowledge and Skills are discussed in this chapter:

1A Identify routine maintenance practices of a specific business.

4C Apply safety and sanitation procedures when performing assigned tasks.

6A Analyze principles of time management and work-simplification when performing assigned tasks.

6B Demonstrate how to function effectively when performing routine procedures and practices related to specific businesses.

6C Predict the impact of effective time management and work simplification on the cost of institutional maintenance.

7A Develop guidelines for selecting equipment, supplies, and procedures for assigned tasks.

7B Apply appropriate procedures while operating equipment and using tools and products in the performance of assigned tasks.

7C Describe the impact of technology on equipment, supplies, and procedures utilized in the industry.

7D Describe appropriate procedures for completing a variety of tasks involved in institutional maintenance.

8A Exhibit work simplification techniques and prescribed procedures for specific cleaning tasks.

Chapter Vocabulary

case goods
furnishings
grout
mosaic floor
natural fibers
polish
quarry tiles
synthetic fibers
tarnish
upholstered furniture
wood veneer

In industrial maintenance services, it is important to develop a work pattern that will result in an efficient system of cleaning. Written cleaning procedures answer the following questions: who, what, when, where, why, and how. These cleaning procedures are not developed in a day but are the result of time, effort, and hard work.

Written procedures result in a consistent program of housekeeping and maintenance that is efficient, effective, and cost-effective. Procedures eliminate guesswork for new employees and remind experienced employees of the standards demanded by the institution.

Not every cleaning task needs to be done each time a room or area is cleaned. Dividing tasks into daily, weekly, monthly, and yearly categories can help the executive housekeeper or manager schedule time efficiently in order to make sure all cleaning tasks are done on a regular basis.

One rule for efficiency is as follows: "Never clean it if it is clean." Following this rule prevents wasted time, especially when completing daily tasks. An exception to this rule are health care facilities where an apparently clean surface may be cleaned again in order to reduce the risk of infection.

DUSTING

Though not always visible, dust is present everywhere. Dust can spoil the appearance of a room, soil clothing, irritate eyes and lungs, and spread infection. The longer dust remains on surfaces, the more difficult it is to remove. When dust mixes with moisture in the air, it becomes bonded to surfaces and to other dust particles.

Dust is influenced by the force of gravity. Dust moves downward unless diverted by air currents. Therefore, when dusting, institutional maintenance employees should always begin at the top of a room and work downward. The goal of dusting is to pick up dust with a cloth or move dust to the floor to be vacuumed.

Dusting should remove dust from a surface rather than just stir it into the air. Dusting with a treated dust cloth helps to hold the dust and prevents it from scattering. Oiled or treated dust cloths may be used on furniture treated with oil polish. However, treated dust cloths should not be used on waxed surfaces because the oil will soften the wax finish, making it gummy. A damp cloth may be used to dust plastic and laminated surfaces.

Horizontal surfaces, such as shelves, table tops, and ledges, should be dusted daily before floors are cleaned. Vertical surfaces require dusting less frequently, but they should be dusted at least once a month or as needed. Smoking areas require more frequent dusting.

A feather duster, lambswool duster, or a hand dust mop can be used to remove cobwebs and dust from ceilings, tops of door and window facings, and baseboards. Movements with a feather duster should be precise rather than random. Shelves should be dusted from top to bottom. One hand should be used to dust while the other hand picks up and replaces accessories.

Though techniques differ among institutions, the basic steps for dusting remain the same. Figure 12.1 provides an example of a general dusting procedure.

General Dusting Procedures

Equipment

- Cotton cloth or terry cloth
- Oil treatment or dusting spray

Procedure

- Use a soft, lint-free cloth folded end to end four times to provide thirty-two dusting surfaces. A soft cotton or terry cloth material (18 x 18 inches) can be sewn lengthwise and folded to fit easily into the hand. Dust cloths can be treated with an oil treatment or sprayed with a dusting spray.
- Begin near the entrance of the room or area at the highest point to be dusted. Work down and around the room to the right (to the left if left-handed) to save steps. Generally, start at the entrance, move around the room, and finish at the entrance.
- When dusting wood products, dust with the grain to avoid streaking. Use long, straight overlapping strokes that cover the length of the surface Circular dusting motions waste time. Use a cloth in each hand to save time.
- Refold the cloth as it becomes soiled. Dusting with a dirty cloth may damage wood.
- Do not shake out the dust cloth while dusting. Change to a clean dust cloth as needed.
- Dust all surfaces including those inside drawers and under tables. Pick up objects resting on furniture, dust under them, and return them to their original positions. Follow the supervisor's instructions regarding the dusting of office desks. Some institutions have policies about never touching a desktop that has papers on it.
- Place treated dust cloths in a metal container. Untreated dust cloths can be placed in a plastic bag to contain the dust. Dust cloths folded as described above can continue to be used as long as clean surfaces remain.

Figure 12.1

◆ ***Essential Questions: Dusting*** ◆

1. Why is it important to have written cleaning procedures?
2. What procedures can be followed to ensure that dust is removed from surfaces rather than stirred up into the air?

CEILING AND WALL CARE

When clean and well maintained, walls, ceilings, doors, and woodwork in a building help create a favorable impression with customers and employees. Ceilings and walls that are smudged, dusty, and dirty create a poor impression. This is true regardless of the brightness and cleanliness of the furniture and floors.

Dusty, greasy walls and ceilings do not reflect light. So, dirty walls make an area appear darker. Prolonged exposure to dirt, oil, and smoke can permanently discolor walls and ceilings. Therefore, a clean wall lasts longer without discoloring. Walls should be washed periodically as needed. Ceilings should be washed first so that splashes or drips do not soil clean walls.

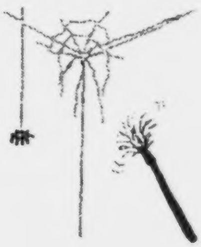
Dirty walls also serve as breeding grounds for bacteria. In health care institutions and other areas where infection control is important, walls require more frequent washing with a disinfectant. Isolation rooms should be fogged, sprayed, or washed thoroughly when a patient is dismissed.

Walls in an institution or building may have a variety of finishes. Housekeepers and maintenance employees may encounter wall finishes such as wood paneling, cement block, wallpaper, painted surface, marble, plastic laminate, brick, and mirror. Ceilings may be wood, painted surface, tile, or acoustical. Each surface requires special care. Some surfaces are washable while others must be vacuumed or dusted only. Management must train employees in identifying types of finishes and in implementing correct cleaning procedures for each type.

Management is also responsible for providing information and protection from the physical and health hazards associated with working with hazardous chemicals. Employees may be required to wear safety gear, such as gloves, aprons, respirators or goggles.

Ceilings

Frequent cleaning of ceilings prevents the buildup of greasy dirt that is difficult to remove. Cobwebs in corners are the most common problem in ceiling maintenance. A cleaning cloth, dry dust mop, or vacuum can be used to remove cobwebs. Cobwebs should be removed with a lifting motion since they may be sticky or greasy and may streak walls if brushed downward. Dusting around light fixtures when changing light bulbs helps eliminate the spread of cobwebs.



Procedures for washing painted or tiled ceilings are similar to those for washing walls. Ceilings should be dusted before being washed. Floors and furnishings should be protected from dripping cleaning solution. To avoid dripping solution, wring excess solution out of the mop or sponge before applying to the ceiling. A cloth wrapped around the wrist and secured by a rubber band keeps solution from dripping down the housekeeper's arm. A long-handled wall mop may be useful. If it is necessary to stand on a ladder to reach the ceiling, safety precautions should be followed.

When cleaning ceilings, start cleaning in one corner of the ceiling and work only within comfortable reaching distance. Cleaning solution should be applied with a mop or sponge and the ceiling rinsed with clear water. If no excess cleaning solution or rinse has been used, the ceiling may be allowed to dry naturally. The ceiling should be wiped dry if it appears to be wet enough to attract dirt rapidly.

Acoustical ceiling tiles, whether applied or suspended, should be dusted or vacuumed regularly. These tiles require little maintenance under normal conditions. If additional cleaning is required, a light detergent solution can be mixed and applied to the surface of the tile with a damp sponge. One should avoid getting the tile wet since staining will occur. Some spots can be removed with an art gum eraser or a putty-like wallpaper cleaner.

Suspended acoustical tiles should be replaced if badly stained. The reason for the stain, such as leaking roof or pipes, should be determined and corrected. Some acoustical tile can be spot painted to hide the stains. White shoe polish applied with a sponge covers stains on some surfaces. As a precaution, shoe polish should be tested on a scrap of acoustical tile to observe the appearance when the polish dries. White or colored chalk can also be used to mask some spots, stains, or damaged areas on acoustical tile.

Walls

Walls should be dusted before being washed. Wall dusting can be done on a regular basis or as needed. A feather duster, lambswool duster, or a wall dust mop can be used. Time and energy can be saved by fitting the duster or mop with a telescopic or extension handle. Additionally, a vacuum with a brush attachment works well for dusting walls. The vacuum should have a long wand that allows the housekeeper to reach from floor to ceiling without a ladder.

A wall badly soiled by grease or smoke, as in kitchen areas, may require an abrasive cleaner or degreaser to remove the grime. Abrasives must be used carefully since they can dull the finish. Allowing cleaner to remain on the wall for a few minutes to completely penetrate the dirt may increase cleaning success. Walls may be cleaned of soil, grease, and film by hand, as described in Figure 12.2, or with a wall washing machine, as described in Figure 12.3.

Hand Wall Washing Procedure

Equipment and Supplies

- ✓ safety signs
- ✓ drop cloths
- ✓ wall duster or backpack vacuum
- ✓ two or three buckets
- ✓ detergent or germicidal cleaner
- ✓ two wall mops or sponges
- ✓ ladder or scaffold
- ✓ plastic net scrubber pad
- ✓ plastic bristle brush
- ✓ terry cloth towel

Procedure

- Place safety signs as needed.
- Remove all pictures, mirrors, and decorative accessories from walls. Move all furniture and equipment away from walls. Check with supervisor about moving heavy file cabinets or storage units. Get help in moving the heaviest pieces. Follow proper safety procedures when lifting and moving items.
- Cover the floor near the walls with drop cloths. If ceilings are to be cleaned, cover all furniture, equipment, and carpet with drop cloths.
- Dust walls and ceiling with dust mop or vacuum to remove all cobwebs. Replace ceiling vent filters and dust vent grills. If vent grills are removable, they should be removed and thoroughly washed.
- Mix cleaning solution in one bucket according to directions. Place clear water in the second bucket for rinsing. If a disinfectant is to be applied, it can be added to the rinse water. A third bucket can be used for disposing of soiled solution and rinse. Squeezing the dirty mops into this bucket before reloading keeps both solution and rinse water clean longer.
- Dip one wall mop into the solution bucket and squeeze (do not wring) until the mop does not drip. Dip a second mop into the clear rinse water and squeeze until the mop does not drip. (Sponges may be used, but handled wall mops allow for greater coverage with less effort.)
- Use the two-hand washing method for efficiency. Place the solution mop in the dominant hand (right hand if right-handed) and place the rinse mop in the other hand. Safely scale the ladder so that work area will be at shoulder height.
- Begin in the top left corner of the wall. Wash horizontally along the ceiling and vertically along the corner. Wash the wall in an area no larger than a natural reach. Use a figure-eight motion. Clean the wall in sections. Move from left to right while overlapping sections several inches each time. If cleaning a single room, begin at the upper left corner of wall to the left of the entrance and proceed around the room to the right.
- Apply light pressure to the mop at first to prevent dripping. Increase pressure as the mop dries.
- Do not overreach. Working methodically in small areas at shoulder height will reduce fatigue.
- Proceed around the room or area. Move the ladder and buckets as needed. Using a ladder with a platform or a scaffolding system that allows the buckets to be placed nearer the area being cleaned will save time and energy.
- Spray stubborn spots with a stronger detergent solution contained in a spray bottle. A plastic bristle brush or scrubber can be used to gently feather the spot into the surrounding area. Feathering means to work in a circular motion, applying lighter pressure as one moves farther from the center.
- Dry each cleaned area with a terry towel before moving to the next area.
- Survey the room or area after cleaning to see if any spots or soiled areas remain.
- Move furniture into place.
- Pick up drop cloths and equipment and proceed to the next cleaning area. Replace dirty solution and rinse water.
- When all cleaning is completed, clean mops and buckets and properly store equipment and supplies.

Figure 12.2

Machine Wall Washing Procedure

Equipment and Supplies

- ✓ safety signs
- ✓ drop cloth
- ✓ wall duster or backpack vacuum
- ✓ detergent or germicidal cleaner
- ✓ wall washer machine
- ✓ ladder or scaffold
- ✓ plastic bristle brush
- ✓ terry cloth towel

Procedure

- Place safety signs as needed.
- Remove all pictures, mirrors, and decorative accessories from walls. Move all furniture and equipment away from walls. Check with supervisor about moving heavy file cabinets or storage units. Get help in moving the heaviest pieces. Follow proper safety procedures when lifting and moving items.
- Cover the floor near the walls with drop cloths. If ceilings are to be cleaned, cover all furniture, equipment, and carpet with drop cloths.
- Dust walls and ceiling with dust mop or vacuum to remove all cobwebs. Replace ceiling vent filters and dust vent grills. If vent grills are removable, they should be removed and thoroughly washed.
- Mix cleaning solution in one tank of the wall washing machine according to directions. Place clear water in the other tank. A disinfectant can be added to the rinse water tank. Space must be left in tanks for air pressure, and caps must be tightly secured.
- Pump the handle to build pressure in the tanks of the wall washing machine. Follow instructions regarding the correct amount of pressure. Maintaining the correct pressure will allow normal operations for several hours.
- Cover the trowels of the wall washing machine with folded pads. The pads can be commercially purchased, or the institution may make their own pads from used terry towels. Clamp the pads securely in place with no surface wrinkles.
- Press the trigger or button on each trowel to release solution and rinse into the pads. The pads should be damp but not dripping. The trigger or button on the solution trowel is usually a different color than the button on the rinse trowel so the trowels can be identified quickly. A third trowel, which is not connected to the machine, may be provided for drying.
- Begin in the top left corner of the wall. Wash horizontally along the ceiling and vertically along the corner. Wash the wall in an area no larger than a natural reach. Use a figure-eight motion. Clean the wall in sections. Move from left to right while overlapping sections several inches each time. If cleaning a single room, begin at the upper left corner of wall to the left of the entrance and proceed around the room to the right.
- Do not over-reach. Working methodically in small areas at shoulder height will reduce fatigue.
- Proceed around the room or area, moving the ladder and wall washing machine as needed. Using a ladder with a platform or a scaffolding system that allows the machine to be placed nearer the area being cleaned will save time and energy.
- Spray stubborn spots with a stronger detergent solution contained in a spray bottle. A plastic bristle brush or scrubber can be used to gently feather the spot into the surrounding area. Feathering means to work in a circular motion, applying lighter pressure as one moves farther from the center.
- Survey the room or area after cleaning to see if any spots or soiled areas remain.
- Move furniture into place.
- Pick up drop cloths and equipment and proceed to the next cleaning area. Replace dirty solution and rinse water.
- When all cleaning is completed, properly clean and store equipment and supplies.

Figure 12.3

BEST COPY AVAILABLE

The wall-washer machine is a pressurized solution dispenser. The operator controls the amount of dispensed cleaning solution and rinse water through hand-held pads. A wall washing machine can improve company profits in several ways. First, the cleaning solution tank holds enough liquid for an entire day's cleaning, so time is not wasted changing dirty solutions. And, secondly, this method of wall washing saves time normally spent in squeezing out sponges or mops. Further, due to its ergonomic design, the machine lessens worker fatigue by minimizing the bending and stooping found necessary with the bucket method.

Wood Paneling. Wood paneling is used to create an elegant look. It is often found in executive offices and suites, libraries, and conference rooms. Although some paneling resembles wood, it is actually plastic laminate. Housekeepers and maintenance employees must be able to tell the difference in order to select appropriate cleaning products.

Inexpensive wood items may have a polymer finish on them. These items should be treated much like plastics. Wood treatments are usually scheduled as project cleaning and are done infrequently unless special needs arise.

Wood is usually treated with oil. The oil is applied to a cloth and rubbed into the wood in a slight circular motion with the grain of the wood, usually up and down. The wood absorbs the oil. Any excess oil should be wiped off since oil left on wood attracts dust. Oil treatment produces a matte finish rather than a high shine. Additional buffing of the wood increases the luster.

Polishes are used on woods if a brighter finish is desired. A ***polish*** dissolves soil that might be on wood, such as dust and fingerprints. Polishes are not absorbed by wood. They remain on the surface, and any excess should be wiped off.

To achieve a high gloss, waxes can be applied to wood with a soft cloth. Buffing can be done with another soft cloth or with an electric buffer fitted with a lambswool pad.

Wall Coverings. In institutions, wall coverings are usually made of vinyl that is laminated to a cotton or fabric backing. Vinyl wall coverings are available in a variety of weights and thicknesses. They may be smooth textured, rough textured, patterned, or of solid color. Two advantages of vinyl wall coverings are durability and ease of cleaning.

Vinyl wall coverings should be dusted or vacuumed on a regular basis. Stains or spots should be treated as soon as possible after they occur. Wall washing should be done on a limited basis with minimum amounts of solution. Excess water can invade the wall covering seams and cause the wall covering to lift and peel from the wall.

A firm-bristle brush and a low-sudsing detergent solution can be used to clean rough-textured vinyl wall coverings. After cleaning, rinse well using a sponge. Thoroughly dry the surface using a soft cloth.

Natural Stone Surfaces. Marble, slate, and travertine are natural stones used on floors or walls. Furniture, such as table surfaces, is also made from natural stone. Most natural stone surfaces have a polished surface. However, regular cleaning is needed to protect their natural beauty.

Abrasives, acids, or alkalis can damage natural stone surfaces. Therefore, a cleaning agent such as a neutral detergent is used to penetrate stone surfaces and remove dirt. A polish preserver or paste wax can be applied to seal the stone and prevent the penetration of dirt. Weekly cleaning with the detergent and periodic renewing of the preserver or wax will maintain a suitable finish. An electric buffer can be used with the wax if a high-gloss shine is desired.

Brick walls or concrete block walls may be used in some areas. Regular vacuuming is the best way to maintain these walls. The backpack vacuum with a long wand and a brush tool can quickly clean walls of average height.

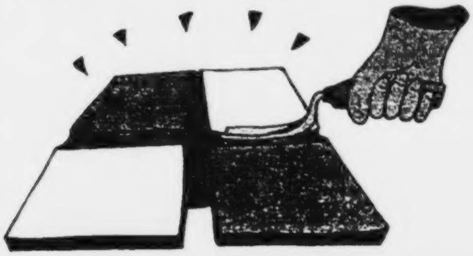
Ceramic Surfaces. Ceramic tile floors and walls are found in restrooms, kitchens, and laboratories. Ceramic is an easy-care material that resists staining. Ceramic surfaces are impermeable and, therefore, very hygienic.

A ***mosaic floor*** is made of small squares of ceramic tile. It is usually a matte or slip-resistant finish. ***Quarry tiles*** are matte surface tiles often used in kitchen areas. Quarry tiles are resistant to acids, oil, grease, and water, but may be damaged by strong alkalis like bleach or ammonia.

Cracked or chipped tiles are excellent habitats for bacteria and should be replaced. If replacement is not practical, the tiles should be cleaned and sealed to prevent further deterioration or bacterial growth.

Grout is a thin mortar used to fill the spaces between tiles. Over time, the grout can become stained and discolored. Cleaning grout is a time-consuming task. General procedures for cleaning grout follow:

- Make a thin paste using hot water and an abrasive cleaner containing bleach.
- Use a toothbrush or paintbrush to apply the paste onto the grout.
- Allow the paste to remain on the grout for a period of twenty-four hours.
- Scrub the grout with a stiff brush dipped into the paste solution.
- Rinse the grout thoroughly.



◆ Essential Questions: ◆ Ceiling and Wall Care

1. Why is it important to clean ceilings and walls regularly?
2. Why should cobwebs be removed carefully when cleaning ceilings?
3. What techniques can be used to clean acoustical ceiling tiles?
4. How do the procedures for washing walls by hand and by machine differ?
5. In what ways do cleaning methods for wood paneling, wall coverings, natural stone surfaces, and ceramic surfaces differ?

FURNITURE CARE

When properly cared for, furniture provides pleasure and comfort for many years. Proper care of furniture should begin upon delivery. Housekeepers and maintenance employees must be able to identify materials used in furniture construction. As well, they should incorporate time and money-saving products that will maintain the appearance of the furniture.

The two main types of furniture are case goods and upholstered. ***Case goods*** include chests, desks, tables, and other furnishings that do not have upholstered parts. ***Upholstered furniture*** has fabric coverings on all or part of the piece. Case goods are made of materials such as the following:

- Wood – Wood furniture may be solid wood or wood veneer. ***Wood veneer*** is comprised of thin sheets of wood glued to an inexpensive plywood or particleboard base. These sheets of wood are usually beautifully grained or patterned. The finished product resembles solid wood and should be treated like solid wood furniture. Veneers are also used on expensive furniture because the veneer process produces a finish that wears well in dry or moist climates.

- Metal – Metal furniture may be made of metals such as iron, brass, chrome, aluminum, or stainless steel.
- Plastic - Plastic may be molded to create an entire piece of furniture, or sheets of plastic may be glued to a wood frame to produce a laminated surface.

Wood Furniture

Wood furniture can be treated with furniture polish, oils, or wax. The finish on wood furniture determines the appropriate types of products used for cleaning and protecting. Therefore, the maintenance employee should determine if the furniture is wood or a plastic resembling wood.

Wood with a high-luster finish should be polished with a non-oil base furniture polish or paste wax. Dull-luster finishes require a nonabrasive cream wax. Natural oil finishes should never be waxed. They should be rubbed occasionally with an oil recommended by the furniture manufacturer. When applying wax, polish, or oil to furniture, one should always follow label directions and rub in the direction of the grain of the wood.

Observing the following guidelines may protect wood furniture:

- Avoid placing solid wood or wood veneer furniture in direct sunlight. The sun dries the wood and causes the finish to crack and discolor.
- Use mats under lamps, vases, or other accessories that do not have protective bottom coverings such as felt in order to protect the finish of furniture.

- Protect wood furniture from liquids. Liquids can damage furniture finish and discolor or stain wood.
- Maintain a humid environment to prevent wood from drying out. Fresh plants in a room will provide some humidity.

Upholstered Furniture

Buying and upholstering furniture are major expenses in institutional budgets. Therefore, the goal for institutional maintenance management is to preserve the appearance and usefulness of upholstered furniture.

Different types of fabrics may be used on upholstered furniture. Institutions can choose from a wide variety of upholstery fabrics that are attractive as well as dust repellent, water repellent, easy to clean and maintain, and durable.

Most fabrics are constructed from natural or synthetic fibers. ***Natural fibers*** used for upholstery include cotton, linen, wool, and silk. Manufactured or ***synthetic fibers*** used in upholstery include nylon, rayon, polyester, acrylic, olefin, and aramid. Plastic and leather are also used in furniture upholstering.

Unless given proper care, upholstery will acquire stains and signs of wear. Proper care can extend the beauty and usefulness of upholstered furniture. Slipcovers that can be removed for laundering or cleaning may be used to protect some pieces of furniture.

Upholstered furnishings collect as much dust on the surface as do wood furnishings, but the dust is not as easily detected. It is important that upholstered furniture not be neglected in cleaning schedules.

Frequent brushing or vacuuming removes surface dust more effectively than an occasional thorough cleaning. Therefore, furniture should be thoroughly vacuumed at least once a week. Spots should be removed from furniture as soon as possible after the spotting occurs. Cushions should be turned regularly to ensure even wear.

Upholstery surfaces can be shampooed if a stain or soil covers a wide area. In this case, an institution may choose to hire experienced upholstery cleaners. Furniture should not be shampooed on a regular basis. Figure 12.4 provides an example of an upholstery cleaning procedure.

Plastic. Upholstery fabrics made of plastic endure frequent wear. They can be cleaned with a detergent solution followed by a clear water rinse. A protective wax or polish can be applied to the surface. After the polish has remained on the upholstery surface for a few minutes, any excess polish should be wiped away. Polish left on upholstery can damage the clothing of individuals who use the furniture.

Leather. Leather may be cleaned in the same manner as plastic upholstery. Some furniture manufacturers suggest cleaning leather with saddle soap. When using saddle soap, follow the directions on the soap package and then rub the surface with an oil or lanolin. Oil prevents drying and cracking of leather. Excess oil should be removed from leather with a clean cloth.

Upholstery Cleaning Procedure

Equipment and Supplies

✓ spotting kit
✓ vacuum with upholstery attachment
✓ brush
✓ stain-resistant spray
✓ dust cloth

Procedure

- Check for stains or spots. Apply appropriate treatments to remove stains. Consult professional upholstery cleaners when upholstery is heavily soiled.
- Place an upholstery attachment on the vacuum. Vacuum all sides of cushions. Be sure to clean seams and tufts. Tufts are places where the stuffing in furniture is pulled in and secured with clusters of threads. Tufts are often attached to buttons.
- Vacuum the entire piece of furniture with a back-and-forth motion. Continue this procedure until all surfaces of the furniture are dusted. Be sure to clean the fabric-covered area under the cushions. To ensure that all areas of a piece of furniture are vacuumed, establish a regular system of vacuuming to be followed on all pieces of furniture. For example, always start at the top left and work down and to the right.
- Use a brush rather than a vacuum to clean upholstery filled with down (very fine feathers). Suction from a vacuum pulls the down through the upholstery fabric.
- Reapply stain-resistant spray to upholstered furniture as needed after thorough cleaning. Protect exposed wood areas on furniture from the spray. Stain-resistant finishes can be applied by the factory or by the purchaser. A ***stain-resistant*** finish protects upholstery fabric by keeping liquid and oil spills from penetrating the fibers. Spills remain on the surface where they can be easily removed.
- Dust exposed wood surfaces on upholstered furniture with a clean cloth that does not contain oil. If a wood surface requires special treatment, apply polish or oil carefully so it does not get on upholstery fabric.

Figure 12.4

Plastic Furniture

Plastic furniture is appearing more often in institutions. Plastics cost less than wood or metal furnishings. Plus, they are long lasting and easy to clean. However, plastics are easily stained by many solutions and show burn marks easily.

Over time, laminated plastic surfaces can become dull. Reviving plastic surfaces is done by cleaning with mild, soapy water, rinsing with clean water, and drying. A cream polish can be used to clean and produce a shine that will make a dull plastic surface appear new. Cream polish also removes spots and some stains.

Abrasive cleaners are not recommended for cleaning plastic furniture. Abrasives scratch the surface of plastic laminates and make them appear dull. If plastic has a matte finish, mild abrasive cleaners can be used cautiously to remove stains that were not removed by cream polish. For stubborn stains, a paste made from a bleach-containing cleaning powder and water can be placed on a stained area for a few minutes before being rinsed away.

◆ Essential Questions: ◆ Furniture Care

1. Of what types of materials are case goods made?
2. In what ways may wood furniture be protected from damage?
3. How should different types of upholstery materials be cared for?
4. What are advantages and disadvantages of plastic furniture?

GLASS CARE

Institutions have many glass surfaces that must be cleaned on a regular basis. Interior glass surfaces include windows, panels, doors, mirrors, display cabinets, and pictures. The cleaning frequency of interior glass surfaces depends upon their position in the building.

Glass surfaces that are more visible or are subject to fingerprints should be cleaned daily. For example, exterior glass doors should be cleaned daily because fingerprints show quickly. Exterior window surfaces are cleaned less frequently and may be done on a project basis.

The characteristics of glass make it a special cleaning problem. Its hard surface causes soil removal to be more difficult than soil removal from other types of surfaces. On other surfaces, the cleaning action of a solution is supplemented by scrubbing. However, scrubbing is seldom necessary when cleaning glass. Here, the cleaning solution lifts the soil and grease into suspension that is easily removed by wiping. Any dirt left on glass is immediately obvious. For example, both sides of a window must be cleaned for the window to look clean.

WINDOW CLEANING

In cold weather, more attention must be given to windows because condensation and changing temperatures lead to more accumulation of dust. Windows look more streaked in cold or windy weather. Other reasons glass surfaces may appear streaked include the following:

- Hard water leaves mineral deposits on glass surfaces. Most commercial cleaners contain water softeners to prevent this condition.
- Abrasive powder scratches the surface of glass and leaves a powdery substance when

BEST COPY AVAILABLE

dry. Abrasive powder should never be used to clean glass.

- Too much soap or detergent in a cleaning solution will leave a film on glass.
- Washing exterior windows in windy conditions or in bright sunlight causes cleaning solution to dry too quickly and leave a film. Avoid windy conditions or direct sunlight when washing exterior windows.

Windows

Following a recommended system for efficient window or glass cleaning saves time and energy. Interior windows or glass partitions are generally cleaned using the spray and wipe method. If large areas of windows must be cleaned regularly, the housekeeper should learn to use the squeegee method of washing windows.

The squeegee method is fast, but it requires more skill to obtain effective results. When a squeegee is used, excess water runs off of the squeegee blade. When cleaning exterior windows, the water that runs off the squeegee blade does not pose a problem. When cleaning interior windows with a squeegee, however, the excess water must be controlled. A drop cloth should be placed on the floor to catch water that drips. Figure 12.5 provides an example of an interior window cleaning procedure.

Exterior windows are exposed to dust, rain, and exhaust fumes. Since they are cleaned less often than interior windows, they are usually much dirtier at cleaning time. Before cleaning exterior windows, screens or protective coverings may need to be removed. Also, screens or protective coverings should be cleaned before replacing.

Windows should first be cleaned with a detergent solution to remove dirt and grime. Once dirt is removed, windows should be shined with a glass cleaner. Excess exterior dirt may be removed by spraying with a water hose. On large expanses of glass, a clean wet mop can be used to apply detergent or cleaning solution. Then, the window can be rinsed using a water hose and dried using a large squeegee.

Mirrors

Mirrors are cleaned by spraying glass cleaner on the mirror and wiping dry with a clean cloth or paper wipe. Most glass cleaner solutions contain alcohol or ammonia. Alcohol and ammonia evaporate quickly and allow mirrors to dry quickly. Unless a mirror is in an area exposed to heavy smoke, a heavier detergent solution is not needed.

◆ Essential Questions: ◆ Glass Care

1. Why do the cleaning procedures for interior and exterior glass surfaces differ?
2. For what reasons may glass surfaces appear streaked?
3. How are mirrors cleaned?

CARE OF FURNISHINGS

Furnishings are items that add character and contribute to the overall appearance of a room. Many furnishings serve a useful purpose. For example, window coverings filter noise and light, and lamps provide additional light to a room. Furnishings include window coverings, lamps, and light fixtures. Caring for furnishings is important. Furnishings must be clean and maintained in order to add to the attractiveness of a room.

Interior Window Cleaning Procedure

Equipment and Supplies

- Ladder
- Dust cloths
- Paint brush
- Soft scrub brush
- Drop cloth
- Detergent solution
- Soft cloths or chamois cloths
- Sponge
- Synthetic-bristle brush
- Glass cleaning solution
- Window squeegee

Procedure

- If necessary, position a ladder. Follow proper safety procedures.
- Remove curtains or draperies and shake to remove dust. Report to the supervisor if curtains or draperies require cleaning or washing.
- Dust window frames and sills with a clean paint brush or soft cloth. Wash the frames and sills if necessary. A soft scrub brush can be used to clean dirt buildup in the corners of windows. Avoid using a stiff brush or a metal tool to remove dirt because these can scratch windows.
- Spread a drop cloth along the inside of the windowsill or on the floor to prevent damage to inside surfaces. This is especially important if the squeegee method is used.
- Use a detergent solution to remove dirt from heavily soiled windows. Apply the detergent solution with a sponge or cloth that has been squeezed of excess solution. If the dirt or grime is heavy, a synthetic-bristle brush can be used.
- Use a soft cloth to wipe the window dry.
- Spray glass-cleaning solution on the glass starting at the top of the window. Most commercial cleaning solutions contain alcohol or ammonia to speed drying. A solution can be made using three parts water to one part ammonia (3:1).
- Wipe the sprayed area dry with a soft cloth, chamois cloth, or squeegee. Use a lint-free cloth to touch up the corners where the squeegee could not reach.
- Wipe the squeegee blade dry after each stroke.
- Hang curtains or draperies.

Figure 12.5

Window Coverings

Draperies. Draperies should be vacuumed regularly to remove dust and dirt that can weaken fabric fibers. Regular vacuuming of drapes decreases the need for dry cleaning. Vacuuming also reduces the amount of dry cleaning and extends the lives of draperies.

Even with regular vacuuming, however, draperies should be dry-cleaned at least once a year. If an institution has its own dry-cleaning machine, draperies can be cleaned and replaced quickly without severely hindering the use of a room. Sheer curtains, sometimes called window liners or casement curtains, should be washed more frequently.

Blinds. Mini blinds and vertical blinds are popular in institutional settings because they are attractive and easy to clean. For general cleaning, blinds need only be dusted or vacuumed on a regular basis. Figure 12.6 provides a procedure for cleaning lightly soiled blinds.

When blinds are heavily soiled with grease, dust, or smoke, they should be washed. Some institutions have machines for washing blinds. These machines consist of large tanks that allow the blinds to be submerged in a detergent solution and cleaned by an ultrasonic process. Some cleaning tanks heat the water for faster cleaning of greasy blinds.

When cleaning private residences, such as single-family homes, blinds can be cleaned in bathtubs or showers. A hand-held spray is effective in rinsing blinds. After being washed, blinds should be placed on an absorbent surface to drip almost dry. A fan can be used to speed drying. Blinds can be hung before they are completely dry.

Shades. Window shades should be dusted or vacuumed on a regular basis. They should be removed and cleaned annually or when dirty. Cleaning methods will depend on the type of material used in the shade construction.

Drapery Hardware. Brass or chrome drapery rods should be dusted or vacuumed regularly. When draperies are removed for cleaning or mending, drapery hardware should also be cleaned. Drapery hardware should be wiped with a damp cloth or sponge dipped in a detergent solution, rinsed with a damp sponge, and dried with a lint-free cloth. Metal polishes can also be used for cleaning and polishing drapery hardware. Polishes leave a light, slippery film that inhibits the buildup of dirt and soil.

Lamps and Light Fixtures

Lamps. Lamps are decorative accessories that provide an attractive atmosphere by adding weight and balance to a decorating scheme. They also provide additional lighting necessary to complete tasks. Lamps may sit on floors, tables, or shelves. Lamps consist of a base and a shade or glass globe.

Lamp bases are often made of materials such as ceramic, metal, or wood. Wood bases can be polished with oil or cleaned with a wood polish. Ceramic bases should be washed with a detergent solution. Metal bases may be cleaned with a metal cleaner appropriate for the type of metal. Glass globes should be dusted with a clean cloth and, periodically, washed in a detergent solution.

Lampshades should be dusted regularly. Parchment shades can be wiped with a damp cloth and wax applied as a preservative. Fabric shades should be vacuumed or dusted with a soft cloth or paintbrush. If a fabric lampshade is soiled and needs to be washed, the suds of a detergent solution can be lightly brushed into the fabric, or a dry foam cleaner can be sprayed onto the shade, allowed to sit the required amount of time, and vacuumed away. Shades made of natural or painted metal, glass, or fiberglass can be washed with a detergent solution. These shades should be thoroughly dry before being placed on lamps.

Light Fixtures. Many different types of lighting are used in institutions. Light fixtures can be overhead lighting or wall fixtures. Dirt can greatly reduce the amount of light projected by a light fixture.

For efficient lighting levels to be maintained, a systematic schedule for cleaning light fixtures should be established. For example, light fixtures should be cleaned once every four to six months. Changes in atmospheric conditions may require light fixtures to be cleaned more frequently.

Generally, a team of two persons can clean light fixtures most efficiently. One person removes and replaces fixtures while the other washes and dries them. The electrical current to the lights being cleaned should be turned off when possible.

Window Blinds Cleaning Procedure

Equipment
- Feather duster
- Dust cloth
- Vacuum cleaner
- Terry cloth or lambswool mitt

Procedure

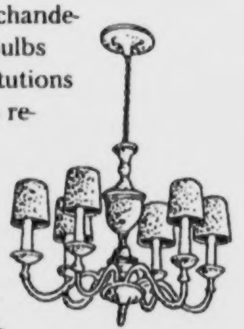
Vertical Blinds
- Lower the blinds.
- Turn the slats so they curve toward the window.
- Hold the blinds away from the window and dust the slats with a feather duster, cloth, or vacuum. Start at the top of the blinds and work toward the bottom from left to right.
- Turn the slats so they curve downward away from the window.
- Hold the blinds away from the window and dust the slats with a feather duster, cloth, or vacuum. Start at the top of the blinds and work toward the bottom from left to right.
- Turn the slats until they are horizontal.
- Dust each slat individually using a terry cloth or lambswool mitt. The mitt allows both sides of a slat to be dusted at the same time.

Horizontal Blinds
- Close the blinds.
- Turn the slats so they curve toward the window.
- Dust the slats with a feather duster, cloth, or vacuum. Working from left to right, start at the top of the blinds and work toward the bottom.
- Turn the slats so they curve outward away from the window.
- Dust the slats with a feather duster, cloth, or vacuum. Working from left to right, start at the top of the blinds and work toward the bottom.
- Turn the slats until they are vertical.
- Dust each slat individually using a terry cloth or lambswool mitt. The mitt allows both sides of a slat to be dusted at the same time.

Figure 12.6

Light bulbs, fluorescent tubes, and diffusers accumulate the same type of greasy film as windows and mirrors. Therefore, these bulbs can be cleaned with the same solutions used to clean glass. Light bulbs and fixtures should be allowed to cool before being wiped clean. Figure 12.7 illustrates a light fixture cleaning procedure.

Chandeliers require a special cleaning procedure and are usually cleaned on a project basis annually or semiannually. Special scaffolding or a special hoist is required to reach chandeliers suspended from high ceilings. Generally, when a chandelier is cleaned, all light bulbs are replaced. Many institutions find this method of bulb replacement more cost-effective than attempting to replace light bulbs as they burn out. The time and effort spent placing scaffolding to reach high ceiling fixtures is more cost efficient in terms of time and labor when all light bulbs are replaced at once.



Light Fixture Cleaning Procedure

Equipment and Supplies

✓ safety signs
✓ wooden ladder or scaffolding
✓ detergent solution
✓ fixture washing tanks or buckets
✓ feather or lambswool duster
✓ buckets
✓ sponges
✓ damp cloth
✓ general purpose polish
✓ light bulbs

Procedure

- Place safety signs as needed.
- Set up wooden ladder or scaffolding. Observe safety precautions. It is safer to use a wooden or fiberglass ladder when working with electrical outlets because they do not pose as great a shock hazard as metal ladders.
- Place detergent solution in the washing tank or a bucket and mix according to instructions. Place clear water in a second tank or bucket.
- Turn off electricity to fixtures being cleaned. Make certain that hands are dry before working with light fixtures.
- Remove loose dust or cobwebs with a duster. Avoid smudging dirt on the ceiling or walls.
- Remove light fixtures carefully. Wash the inside and outside of the fixtures with cleaning solution. If a washing tank is not available, use two buckets and a sponge. Rinse the fixtures with clear water. Allow them to drip dry or use a fan to speed drying. Do not dry light fixtures with a dry cloth as this may cause static electricity that will attract dust and dirt particles.
- Wipe light bulbs with a damp cloth. Be sure bulbs are cool. Hot bulbs may break when touched with a damp cloth.
- Wipe other parts of the fixture such as chains, metal parts, rims, and bases. General purpose polish may be used to improve the appearance of exposed metal parts.
- Change bulbs as needed. (Some institutions change all bulbs when fixture cleaning is a scheduled project.)
- Replace all parts and test lights for proper operation.
- Work progressively toward the end of a row when cleaning fixtures in a large room. Move to the second row and continue until all rows of lights are completed.
- Place shades, globes, and other removable parts in the tub, shower, or sink for cleaning in a guest or patient room.
- Clean all equipment and return equipment and supplies to proper storage.

Figure 12.7

Ashtrays

Ashtrays should be emptied and washed daily. In some institutions, maintenance employees attend to the ashtrays in public areas on an hourly basis. Ashes and smoking materials should be safely dumped in a metal container with a lid.

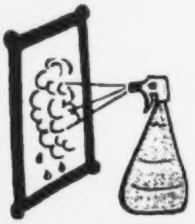
Ashtrays should be washed in detergent solution, rinsed, and dried thoroughly before being replaced. If the soil in ashtrays is light, glass cleaner can be sprayed on the ashtray and wiped off. This method cleans as well as deodorizes ashtrays.

Some housekeepers may be instructed to replace dirty ashtrays with clean ones from the housekeeping cart. After emptying dirty ashtrays into an available container, the housekeeper places the dirty ashtrays on the cart. These are returned to the central housekeeping supply room where they are washed by hand or in a dishwasher. A clean supply of ashtrays is then returned to the housekeeping cart.

Office Equipment

Office equipment, such as copiers, typewriters, computers, and fax machines, collect dust just as other furniture pieces. Office equipment should be dusted daily to ensure proper operation. The maintenance employee should follow company policies and procedures on the daily care of any office equipment. Many institutions hold the users responsible for the cleaning of expensive equipment. Figure 12.8 provides guidelines in the general cleaning of computers.

Telephones. Telephones should be dusted regularly. The frequent handling a telephone receives leaves oily residues that attract dust and stains. Telephones can be cleaned with a spray solution and wiped dry. A disinfectant cleaner should be used to clean the mouthpiece of the telephone. Disinfectant cleaner should be applied lightly so that excess solution does not run into the mouthpiece.



Wall Decorations. Picture frames should be dusted and the glass should be cleaned with glass cleaner. Spray the glass cleaner on a soft cloth and wipe the picture glass. This method ensures that no excess moisture gets between the glass and the frame. Moisture may cause condensation to form on the inside of the glass that could ruin the picture.

Oil paintings should be lightly dusted with a feather duster or dry, soft cloth. Cleaning solutions should not be used on paintings as they can strip the paint. Contact a professional when it is necessary to clean oil and water-based paintings.

Tapestries and other fabric wall hangings should be shaken, if possible, and vacuumed with a backpack or hand vacuum. Spot cleaning is appropriate for some tapestries and fabric wall hangings. Maintenance personnel should consider the fiber content before attempting to spot clean. When in doubt, contact a supervisor or a cleaning professional.

◆ Essential Questions: ◆ Care of Furnishings

1. What procedures should be followed when cleaning draperies, blinds, shades, and drapery hardware?
2. What methods can be used to clean lampshades?
3. Why must light fixtures be cleaned regularly?
4. What procedures may be followed when cleaning ashtrays?
5. Why is it important to dust office equipment daily?

CARE OF METAL SURFACES

Walls, furniture, doors, windows, decorative items, escalators, kitchens, restrooms, and elevators often contain metals. Metals commonly found in institutions include stainless steel, aluminum, brass, and copper. These metals require frequent cleaning and polishing. After cleaning, excess solution should be wiped off or a film will remain causing the metal to look dull.

Some metal surfaces are painted or anodized (covered with a protective film). These surfaces are cleaned with all-purpose detergent or disinfectant. Usually, painted or anodized metals do not require polishing.

Cleaning Computers

Equipment and Supplies

- Clean soft cloths
- Trigger spray bottle
- Can of compressed air with plastic extension
- Small container for mixing
- Dishwashing liquid
- Cotton swab

Procedures

- If available, consult the owner's manual and follow manufacturer's recommended cleaning procedure.
- Use very little soap or cleaner so that no residue is left on the computer casing. Cleaning solution consists of 1/4-teaspoon dishwashing liquid mixed with one-quart clear water.
- Turn off and unplug both the computer and the monitor. Allow the monitor to cool for at least 10 minutes. Moisture should not come into contact with a hot monitor.

Cleaning the monitor

- Spray a small amount of the soap solution onto a clean cloth. The cloth should be damp, but not dripping.
- Wipe the outside of the monitor casing.
- Avoid touching the monitor screen with the soapy cloth.
- To clean the monitor screen, spray a small amount of glass cleaner onto another clean cloth. Do not spray the glass cleaner directly onto the screen as this may cause moisture to get caught between the casing and the screen.
- Wipe the screen gently, making certain to reach into the corners.
- When cleaning the screen, wipe any stray water residue left from cleaning the casing.

Cleaning the keyboard

- Use a can of compressed air. Insert the plastic extension into the compressed air can nozzle.
- Insert the end of the extension between the rows of keys. Using short bursts of air, blow out any accumulated dust. Do not use long bursts of air as this can cause condensation to form inside the can which can be blown into the keyboard.
- Clean the keyboard cable with the cloth dampened with soap solution.
- For daily cleaning of the keyboard, use a feather duster.

Cleaning the mouse

- Clean the mouse when it begins to skip or stick.
- Turn off the computer.
- Unplug the computer from the electrical outlet.
- Disconnect the mouse from the computer.
- Turn the mouse upside down. Remove the ball cover located on the underside. Generally, this cover either rotates counterclockwise or slides in one direction.
- Remove the tracking ball. Wipe the ball with a clean cloth sprayed with the soap solution. Dry the ball with a clean cloth and set aside.
- Moisten a cotton swab with a bit of the soap solution. Using the moistened cotton swab, clean the rollers that are located inside the mouse.
- Replace the tracking ball inside the mouse. Return the tracking ball cover. Connect the mouse to the computer.

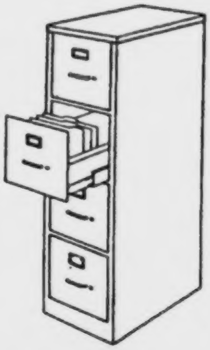
*Before plugging the computer into the electrical outlet,
be certain that there are no wet areas.*

Figure 12.8

Stainless Steel

Stainless steel surfaces may have either a shiny or brushed finish. Stainless steel will stain but it does not tarnish, as do other metals. Abrasives are not suitable for cleaning stainless steel, as they can damage the surface. Any materials dried on stainless steel should be gently scraped away using a wooden tongue depressor. The dried material should be scraped in the direction of the grain of the stainless steel.

The stainless steel grain can be seen as a fine network of scratches going in one direction. Polish formulated for use on stainless steel should be applied with a soft dry or damp cloth. Polish any spots first, rubbing in the direction of the grain. The entire surface should be polished moving with the grain. After polishing, buff the area with a clean, soft cloth to remove any remaining polish.



Brass and Copper

Brass and copper react to air, smoke, and body oils easily. Body oils cause fingerprints and smudges to appear on brass and copper. If fingerprints and smudges are not removed promptly, they will cause brass or copper to tarnish. ***Tarnish*** is a discolored film that appears on metal. The following guidelines are helpful in removing tarnish:

- Use a brass or copper polish.
- Apply polish following label directions.
- Rub the polished area with a soft, dry cloth.

◆ Essential Questions: ◆
Care of Metal Surfaces

1. What are some common metals found in institutions?
2. How do procedures for cleaning painted or anodized metal, stainless steel, and brass and copper differ?

CARE OF CERAMIC FIXTURES AND DRINKING FOUNTAINS

Ceramic Fixtures

Ceramic fixtures in restroom areas must be cleaned daily in order to present an attractive appearance and control bacteria and odor. These fixtures include handwashing sinks and public commodes. In heavily used restrooms, ceramic fixtures may need to be cleaned several times daily.

Drinking Fountains

Many people use drinking fountains every day. Consistent care is required to keep drinking fountains sparkling and free of bacteria and mineral buildup. Figure 12.9 provides an example of general procedures to follow when cleaning drinking fountains.

◆ Essential Questions: ◆
Care of Ceramic Fixtures and Drinking Fountains

1. Why is it important to thoroughly clean ceramic fixtures?
2. What techniques can be used to keep drinking fountains clean and free of bacteria and mineral buildup?

Drinking Fountain Cleaning Procedure

Equipment and Supplies

✓ rubber gloves
✓ disinfectant solution in spray bottle
✓ toothbrush
✓ dry cloth or paper towels
✓ stainless steel cleaner
✓ paste cleaner

Procedure

- Put on rubber gloves.
- Remove trash or gum from fountain.
- Check water flow.
- Spray disinfectant into the bubbler/mouthpiece and on inside surfaces of fountain.
- Scrub the bubbler with a toothbrush. Use the toothbrush to scrub around the base of the mouthpiece and around the base of the push button.
- Rinse using water from the fountain. Wipe the inside surfaces dry with cloth or paper towels.
- Spray the sides of the fountain with disinfectant solution and wipe dry.
- Use stainless steel cleaner to remove stubborn spots or rust stains. Rub the cleaner in the direction of the stainless steel grain. Do not use steel wool to remove stains. The steel wool particles can become stuck in the stainless steel and eventually rust.
- Rinse the fountain thoroughly and wipe dry. A thin coat of paste cleaner can be applied to provide a protective coating that will allow water to roll off without leaving spots.

Figure 12.9

Chapter Highlights

- A damp cloth, treated dust cloth, feather duster, lambswool duster, or hand dust mop may be used to remove dust from surfaces.
- Walls and ceilings should be cleaned regularly since dirty ceilings and walls create a poor impression, do not reflect light, and serve as breeding grounds for bacteria.
- Types of wall surfaces include wood paneling, wall coverings, natural stone surfaces, and ceramic surfaces.
- Wood, metal, upholstered, and plastic furniture must be cared for properly in order to maintain a pleasing appearance.
- Glass cleaner, detergent solution, a wet mop, a squeegee, and clean cloths can be used to effectively clean windows and mirrors.
- Furnishings must be cleaned and maintained in order to contribute to the overall appearance of a room. These furnishings include draperies, blinds, shades, drapery hardware, lamps, light fixtures, ashtrays, office equipment, and pictures.
- Painted or anodized metal surfaces can be cleaned with a general purpose detergent or disinfectant. Stainless steel can be cleaned with polish formulated for use on stainless steel. Brass and copper can be polished with a brass or copper polish.

Chapter 13

Planning Maintenance Tasks: Methods, Procedures, and Sequences

Chapter Focus

The following Essential Knowledge and Skills are discussed in this chapter:

6A Analyze principles of time management and work-simplification when performing assigned tasks.

6B Demonstrate how to function effectively when performing routine procedures and practices related to specific businesses.

7A Develop guidelines for selecting equipment, supplies, and procedures for assigned tasks.

7B Apply appropriate procedures while operating equipment and using tools and products in the performance of assigned tasks.

7D Describe appropriate procedures for completing a variety of tasks involved in institutional maintenance.

7E Demonstrate correct procedure for displaying flags.

8A Exhibit work simplification techniques and prescribed procedures for specific cleaning tasks.

8C Apply safe and sanitary techniques when handling soiled linens and disposable materials.

8D Describe appropriate respect and care for personal property of guests and patients.

Chapter Vocabulary

controlling
coordinating
double bagged
evaluation
flag protocol
half-mast
implementation
management process
planning
policing
public areas
standards

Planning maintenance and housekeeping tasks makes certain that every area is cleaned according to set standards. Also, planning helps to conserve energy and ensures efficient use of time. A well-managed maintenance department relies on the ability of the manager to organize work efficiently. Supervisors should understand how work is organized as it is their responsibility for seeing those tasks completed. The management process is a tool used to organize maintenance methods, procedures, and sequences.

THE MANAGEMENT PROCESS

To effectively organize and manage maintenance tasks, a supervisor must follow the management process. The ***management process*** consists of a series of four steps. The steps emphasize action taken by individuals or businesses to accomplish desired results. In the management process, resources are used to meet demands and reach goals. The steps of the management process are as follows:

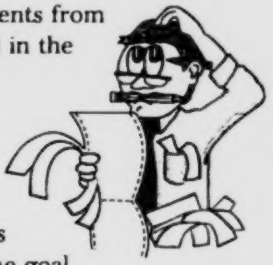
- Planning
- Controlling
- Implementing
- Evaluating

Planning

Planning is the process of making or carrying out plans to reach goals. Planning functions to meet demands, resolve problems, and reach goals. Planning is a significant part of the management process. Therefore, it is important that the planning step be completed successfully.

The amount of success that is achieved through planning depends upon the completeness of the plan. A plan should be established by following a specific pattern of action. The following steps should be observed when creating a plan:

1. *Identify the goal, demand, or problem.*
   – State the purpose of the plan.
2. *Determine a sequence for the plan.*
   – Find a logical order for tasks and note the length of time needed to complete each task.
   – Obtain commitments from individuals involved in the planning process.
3. *Organize the plan.*
   – Determine tasks that can be grouped together.
   – Identify resources available to reach the goal, meet the demand, or solve the problem.
4. *Develop a means for measuring progress.*
   – Determine if the plan is progressing as proposed.



Plans are guidelines for the future. Therefore, it is important to recognize the need for planning. Using the management process helps to develop skills necessary for efficient plan development.

How plans progress are measured according to standards. ***Standards*** are guidelines that describe how tasks are to be performed. Standards also state the expected outcome of tasks. Since standards are measurable, they are stated in terms that tell what, where, when, and how to perform tasks. Additionally, all required resources for performing tasks are identified and listed. Examples of resources include available work areas, needed supplies and equipment, and staff knowledge of roles and tasks for meeting standards.

Standard Operating Procedures. All businesses establish certain procedures for employees to follow. Some procedures involve tasks that are done on a regular basis. Other procedures cover tasks that are done on a project, or occasional, basis. Standard operating procedures (SOPs) are written guidelines for employees to follow when performing tasks. In some instances, information contained within a standard operating procedure may be used to evaluate employee performance.

Standard operating procedures should be established for each task that the maintenance and housekeeping personnel are expected to perform. A standard operating procedure should include the following:

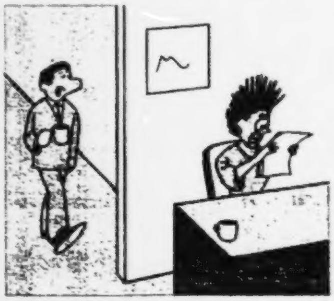
- Description of the task
- Specific guidelines and instructions for performing the task
- Equipment and materials required for completing the task
- Employee responsibilities
- Amount of time necessary for task completion
- Frequency for performing task

Controlling

Controlling is the act of supervising plans as they are implemented. It involves comparing the original plan to the progress of the action that is taking place. In the controlling phase of the management process, supervisors should consider the following:

- Observance of original time frame
- Allocation of designated resources
- Completion of tasks in established order
- Meeting of standards
- Performance of roles
- Feelings of people involved in the plan

The purpose of comparing the original plan to the current progress that is taking place is to provide feedback. Feedback can be either positive or negative. Positive feedback indicates that the plan is progressing as desired or that expectations are being exceeded. Negative feedback identifies possible problems with the plan. Negative feedback is useful in targeting problems, reanalyzing the original plan, and making needed adjustments. Feedback is performed on a continuous basis throughout the implementation of the plan. To gain feedback, supervisors may do the following:



"Did we get any feedback from management yet?"

- Examine employee actions as the task is performed.
- Solicit feedback from the employee regarding the task.
- Compare the employee performance of planned tasks to the standard operating procedure.

After reviewing feedback, the supervisor should adjust plans to make them more effective. Adjustments may require some or all of the following:

- Changing plans to better meet standards
- Reassigning roles and responsibilities
- Reorganizing procedures
- Reallocating resources
- Changing standards for goal attainment
- Changing the original goal

Implementing

Implementation is the act of putting plans into action. Implementation requires active participation by members of the maintenance staff. Implementing a plan requires activities such as the following:

- *Decision making.* Often, new decisions must be made to keep the action and performance progressing. These decisions are more pressure driven than decisions made earlier in the planning process.
- *Physical action.* Actual physical performance of tasks such as dusting, cleaning floors, and making beds.
- *Coordinating.* ***Coordinating*** is the act of organizing, assigning, and monitoring actions and activities so that progress is constantly being made to reach the goal. In order to coordinate activities, there must be good communication between all members of the staff.

Evaluating

Evaluation is the process of examining the results of each step of the management process. The evaluation step should not be overlooked because evaluation leads to improve future planning, controlling, and implementing. The following two questions should be addressed when evaluating the steps of the management process:

- Considering each step of the management process, what are the positive results?
- What areas of the management process need improvement?

Both the evaluation step and the controlling step check the progress and outcome of a plan. However, a more thorough examination is conducted during the evaluation step. The total management process should be checked during the evaluation step. Information received from the evaluation is used to improve both management skills and the success of future plans.

◆ Essential Questions: ◆
The Management Process

1. How can the management process be used to effectively organize and manage housekeeping tasks?
2. What is involved in planning, controlling, implementing, and evaluating?
3. For what purposes are standards and standard operating procedures developed and followed?

MAINTENANCE TASKS: METHODS, PROCEDURES, AND SEQUENCES

The maintenance department performs a variety of tasks. Usually, these tasks are dependent upon the types of institutions where they are performed. For example, cleaning escalators may be a task performed by the custodial staff hired to clean a shopping mall, but is not a task that is generally performed by the janitorial staff in a public school. Additionally, the degree of cleaning found in certain areas will differ. Cleaning and disinfecting a hospital isolation room requires much more care to detail than does the cleaning of a business office.

Not all areas require the same type of cleaning and maintenance. Therefore, it is important for management to supply the maintenance staff with standard operating procedures. These written directives provide employees with a task description, procedures for completing the task, and the sequence in which the cleaning or maintenance should be performed.

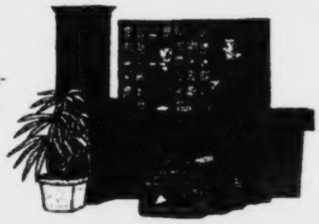
◆ Essential Questions: ◆
Maintenance Tasks: Methods, Procedures, and Sequences

1. Why is it important that management supply maintenance staff with standard operating procedures?

PUBLIC AREAS

The foyers, lobbies, corridors, and public restrooms of institutions are known as ***public areas***. These areas are always on display to visitors and guests who walk through them on a daily basis. It is important that public areas look their best at all times so an image of cleanliness and orderliness is presented.

In many institutions, public area maintenance is a major assignment. More than one maintenance employee may be assigned to clean a public area.



Since heavy traffic makes cleaning of public areas difficult, daily cleaning must be carefully planned and time devoted to policing the area. ***Policing*** is the practice of walking through an area several times and performing some or all of the duties listed below:

- Pick up and remove litter.
- Empty and clean ashtrays.
- Empty ash urns.
- Straighten and reposition furniture
- Clean smudges from glass doors and mirrors.
- Service public restrooms.
- Straighten magazines and decorative accessories.
- Clean public telephone areas.
- Sweep floors to remove trash, dirt, or grit.

Depending on circumstances, policing an area may be performed as little as once every eight hours or as often as every fifteen minutes. The major cleaning in lobbies and other public areas is done at night when there is little or no traffic.

Public areas present a special problem because of dirt, moisture, and snow that is tracked into buildings. Vacuuming and mopping may need to be done more than once a day in bad weather. Walk-off mats are an effective and efficient way to control dirt and debris in a building.

Walk-off mats remove dirt from shoes and trap the dirt within the mat so that it is not visible on the surface. Dirt must be trapped within the mat to minimize retracking by subsequent traffic. Walk-off

General Procedures and Sequences for Cleaning Public Areas

Equipment and Supplies

Housekeeping Cart containing:

- Disinfectant cleaner
- Gloves
- Supply of plastic bags
- Glass cleaner in spray bottle
- Safety signs
- Spray trigger bottle
- Plastic bucket
- Metal container for ashes
- Feather or lambswool duster
- Cloths or sponges
- Carpet stain removal kit
- Putty knife
- Toilet bowl cleaner
- Toilet brush (johnny mop)
- Containers of liquid hand soap
- Toilet tissue rolls
- Paper hand towels

Other:

- Vacuum cleaner
- Wet/dry vacuum
- Push broom
- Toy broom
- Dustpan
- Treated dust mop
- Wet mop
- Spray buffing solution
- Rotary floor machine
- Scoop
- Materials for cleaning drinking fountains as required (refer to Chapter 12, Figure 12.9)

Figure 13.1 *(continued on page 210)*

General Procedures and Sequences for Cleaning Public Areas

Procedures and Sequences

- Mix disinfectant solution in bucket.
- Roll housekeeping cart near entry area. Park out of traffic path.
- Clean outside entrance as follows:
    - Vacuum outside mat. Use a wet vacuum if there is any moisture collected in the mat. Spot clean any soiled areas.
    - Sweep area with push broom. Pick up any trash and collect dirt and debris with dustpan.
    - Replace mat.
- Clean inside entrance as follows:
    - Vacuum inside walk-off mat. Move the mat to another area.
    - Pick up trash. Use a scoop and dustpan to remove cigarettes from sand urns.
    - Sweep, vacuum, or dust mop entry area.
    - Clean inside and outside of glass and doors in entry area.
    - Post safety signs.
    - Wet mop entry area. If there is traffic, mop half of the area at a time. When floor is dry, remove signs and replace entrance mat.
- Clean lobby as follows:
    - Clean restrooms opening off of lobby before cleaning lobby. (Refer to Figure 13.3.)
    - Divide the lobby area in half. If the lobby is in use, place safety signs to separate the cleaning area.
    - Pick up and remove trash.
    - Empty and wash trash containers, ashtrays, and cigarette urns.
    - Use a feather duster to remove cobwebs from walls, ceilings, and pictures.
    - Spot clean door handles, kick plates, and light switch covers.
    - Dust blinds, windowsills, wall hangings, and light fixtures.
    - Check window coverings for neatness. Shake draperies lightly to remove dust.
    - Dust furniture with a treated or damp cloth. Remove any stickiness.
    - Clean drinking fountain.
    - Vacuum carpet. Spot clean if needed. Move and replace furniture as instructed.
    - Dust mop hard-surface floors.
    - Wet mop floors. Spray buff if needed.
    - inspect the cleaned portion of the lobby.
    - Move safety signs and complete the other half of the lobby.
    - Clean equipment. Properly store equipment and supplies.
    - Report needed repairs to a supervisor.

Figure 13.1 - Cont'd.

mats should be vacuumed often to remove dirt so that they can continue to be effective in removing dirt from shoes. If mats are allowed to remain dirty, they will become a source of dirt tracked elsewhere in the building. An example of general procedures and sequences to follow when cleaning public areas is shown in Figure 13.1.

Restrooms

The public judges the cleanliness of an institution by the general state of the restrooms. Public restrooms that are tidy, fresh smelling, and properly stocked, leave a favorable impression on customers, employees, and staff members. Since public restrooms are in constant use, bacteria con-

Spray and Wipe Technique for Cleaning Toilets

Equipment and Supplies

- Germicide cleaner in a spray bottle
- Clean cloths
- Disinfectant toilet bowl cleaner
- Toilet brush (johnny mop)
- Plastic bag or container

Procedures and Sequences

- Flush the toilet to obtain clean water.
- Lift up the toilet seat and lid.
- Spray the underside of the seat with germicide.
- Lower the seat and spray the top of the seat and the underside of the lid.
- Lower the lid and spray the top of the lid. Spray around the hinge area.
- Wipe the hinge area and lid.
- Lift the lid and clean around the rubber cushions.
- Wipe the underside of the lid and top of the seat.
- Lift the seat and clean the underside. Wipe clean.
- Spray the toilet bowl rim and hinge area and wipe clean.
- Lean the seat and lid forward and wipe the hinge area again.
- Place the seat and lid upright until dry to avoid staining the rim.
- Pour disinfectant toilet bowl cleaner into the toilet.
- Use a toilet brush to clean the inside of the toilet bowl. Scrub under the rim of the bowl moving in circular motions down into the toilet.
- Flush the toilet and rinse the toilet brush in the clean water.
- Shake the brush of excess water and place in a plastic bag or container.
- Spray the base of the toilet and the wall behind the toilet with the germicide cleaner. Wipe clean.
- Clean floor screws and the base edge of the toilet.
- Flush the toilet again to be sure all chemicals are rinsed away.
- Leave the toilet seat up to avoid staining the rim.
- Check supply of toilet paper.
- Wipe the toilet tank, the roll holder, the stall door lock before continuing to the next stall.

Figure 13.2

Procedures and Sequences for Cleaning Restrooms

Equipment and Supplies

- Safety signs
- Housekeeping cart
- Gloves
- Disinfectant cleaner
- Bucket for mixing
- Trigger-type spray bottle
- Acid toilet bowl cleaner
- Toilet bowl brush
- Feather or lambswool duster
- Supply of toilet paper, liquid soap, and paper towels
- Clean cloths
- Putty knife
- Supply of light bulbs
- Supply of urinal strainers
- Wastebasket liners
- Wall mop, sponge, or cloth
- Pressurized sprayer
- Long-handled scrub brush
- Floor squeegee
- Degreaser
- Glass cleaner in spray bottle
- Floor broom, dust mop, or vacuum
- Metal polish
- Wet mop
- Two mop buckets with wringer

Procedures and Sequences

- Post safety signs outside entrance of restroom.
- Position housekeeping cart at entrance of restroom if restroom is small. Roll cart inside a large restroom.
- Put on gloves.
- Flush all toilets and spray disinfectant cleaner in each bowl if there will be no traffic in the restroom during cleaning.
- Dust ceiling corners, vent covers, and light fixtures.
- Check light fixtures and replace bulbs as needed. Clean light fixtures each time bulbs are replaced.
- Open all dispensers (i.e., soap, paper towel, toilet tissue). Wipe dispensers inside and out with a cloth dampened in disinfectant. Refill dispensers. Never rely on a visual check. Good restroom service includes filling all dispensers each day.
- Pick up trash from the floor area. Use a putty knife to remove gum or other matter.
- Dust all above-floor surfaces.
- Empty wastebaskets and replace liners. In a health care facility, wastebaskets should be wiped inside and out with disinfectant cleaner each day. In schools, hotels, or other buildings, disinfecting can be done weekly or as needed.
- Wash walls with spray disinfectant solution and sponge or mop. Begin on walls behind sink. Wash from top of wall down to sink level. This procedure may be used on a project basis except in health care facilities. A pressurized sprayer can be used to clean and sanitize all surfaces in restrooms that have ceramic tile walls from floor to ceiling, have a floor drain, and can be blocked off for cleaning. A long-handled scrub

Figure 13.3 *(continued on page 213)*

brush can be used to clean tile and pipes. Rinse the area with a sprayer and squeegee the excess water into the floor drain. Use a degreaser on shower or tub areas to remove body oil. Pressure cleaning is done only on a project cleaning basis in some facilities.

- Spray sinks and metal surfaces with disinfectant cleaner. Remove the sink drain plug and discard any hair or trash on it. Spray the drain plug with disinfectant and wipe clean. Rinse and replace the drain plug.
- Wipe ceramic and metal fixtures clean with a sponge or cloth. Apply metal polish or acid solution for mineral buildup as needed. Rinse well and wipe dry.
- Spray disinfectant cleaner on walls and pipes under sinks. Wipe clean. If walls are washed only on a project basis, pipes under sinks can be cleaned weekly.
- Spray mirrors with glass cleaner and wipe clean.
- Spray and wipe the partition surfaces of toilet stalls with disinfectant cleaner. Since partition walls are often painted metal, solution should be wiped away quickly to prevent spotting or streaking. Also spray and wipe the tops and edges of partitions.
- Clean walls behind toilets working from ceiling to floor.
- Clean toilets from top to bottom using the spray and wipe technique as described in Figure 13.2.
- Use acid cleaner periodically to remove mineral deposits at the water line of the toilet bowl. Use the toilet brush to push the water down in the toilet. Once the water line recedes, apply the acid cleaner. Allow the cleaner to remain on the deposit while other tasks are completed. Follow label directions for proper length of time. Acid cleaners can damage porcelain fixtures if left too long.
- Remove strainers from urinals. Discard any trash collected in the strainer. Place the strainer in disinfectant solution to soak or discard if a replacement is needed.
- Use the spray and wipe technique to clean urinals. Clean under the rim of the urinal and replace the strainer if necessary. Clean the walls around urinals with a disinfectant spray each day. Use an acid cleaner if mineral buildup is present.
- Clean floor grates. Pour disinfectant solution down floor drains to sanitize. Spray bleach solution on any mildew areas. Allow solution to sit before mopping.
- Sweep the floor with a broom, dust mop, or vacuum. Do not use a dust mop or vacuum if the floor is wet or if fixtures are leaking. Report any leaks to the appropriate person.
- Wet mop floors beginning at the back corner of the restroom and working toward the exit. Floor machines, wet vacuums, and squeegees can be used to care for restroom floors also. Dispose of excess disinfectant solution in the toilet. Flush the toilet.
- Remove safety signs when the floor is dry.
- Clean equipment and return equipment and supplies to the proper storage area.
- Place mop heads, sponges, and cloths in the appropriate area for laundering.

Figure 13.3 - Cont'd.

trol is necessary to maintain a restroom that smells and looks clean.

Procedures for Cleaning Toilets. In order to control bacteria, toilets must be cleaned thoroughly. Generally, using a spray and wipe technique is effective for cleaning toilets. Figure 13.2 provides an example of a spray and wipe technique to use when cleaning toilets.

An example of procedures and sequences to follow when cleaning restrooms is shown in Figure 13.3.

Stairways and Corridors

Stairways and corridors receive a high amount of traffic. Therefore, they accumulate almost as much dirt as the entrances to buildings. It is important for maintenance personnel to keep stairways and corridors just as clean as entrance areas.

Procedures and Sequences for Wet Mopping Stairways

Equipment and Supplies

- Broom
- Dust pan
- Safety signs
- Wet Mop
- Two mop buckets with wringer
- Disinfectant cleaner
- Putty Knife

Procedures and Sequences

- Sweep the area to be mopped.
- Place safety signs at the top of the stairs and on each landing.
- Begin mopping at the top of the stairs and work toward the bottom of the stairs.
- Clean the face of each stair as well as the surface.
- Use a figure-eight or S-curve motion to mop landings.
- Use a putty knife to scrape dirt out of crevices and corners.

Figure 13.4

Procedures and Sequences for Wet Mopping Corridors

Equipment and Supplies

- Broom
- Dust Pan
- Safety Signs
- Wet Mop
- Two mop buckets with wringer
- Disinfectant cleaner

Procedures and Sequences

- Sweep the area to be mopped.
- Place safety signs.
- Start at the bucket and mop the baseboard to the end of the designated cleaning area. Begin mopping the floor from this area and proceed toward the bucket.
- Use a figure-eight or S-curve motion.

Figure 13.5

Stairways. Prior to cleaning, the stairway should be examined to determine if damp mopping or wet mopping is necessary. Damp mopping is usually sufficient, but wet mopping is required to remove heavy dirt buildup.

To eliminate spills while mopping, employees should place mop buckets at the bottom of the stairs. Clean one half of a stairway at a time to provide a safe, dry surface for traffic. In addition to mopping the stairway, the handrails should be wiped clean with a damp cloth. An example of procedures and sequences to follow when wet mopping stairways is provided in Figure 13.4.

Corridors. The procedure for cleaning corridors is similar to the procedure for cleaning stairways. Prior to cleaning, maintenance personnel should examine the corridor

Procedures and Sequences for Cleaning Elevators

Equipment and Supplies

- Housekeeping cart
- Putty knife
- Vacuum
- Floor broom
- Dust pan
- Detergent solution
- Disinfectant cleaning solution
- Dust mop
- Wall mop or sponge
- Stainless steel polish
- Soft cloths
- Wet mop
- Two mop buckets with wringer
- Spray buffing solution
- Rotary floor machine

Procedures and Sequences

- Take the elevator to the basement or a floor with the least amount of traffic. Place the elevator out of order according to manufacturer's instructions.
- Remove gum or other matter from the floor with a putty knife.
- Vacuum walls, lights, vents, floor, and door tracks. Door tracks must be cleaned daily so that doors will open and close properly. Use a putty knife and floor broom if dirt deposits in the tracks are not removed by the vacuum. If any sticky materials are in the track, scrub the track with a detergent solution and thoroughly dry. Do not let water run down into the elevator pit.
- Dust the floor with a treated dust mop.
- Mix disinfectant cleaner solution. Dip a sponge or mop into the solution and wring until damp. Clean around the signal panel to remove fingerprints and smudges. Wipe off the telephone and telephone box.
- Wipe all walls of the elevator using disinfectant cleaner. Wash light fixtures and replace any burned out blubs.
- Polish all metal surfaces.
- Wet mop the floor.
- Spray buff the floor.
- Remove all equipment from the elevator. Do a visual check of all surfaces. Repeat any procedures if necessary.
- Release the elevator and move to the next elevator and continue the procedure until all elevators are cleaned.
- Clean equipment and return equipment and supplies to the proper storage area.

Figure 13.6

to determine whether damp mopping or wet mopping is necessary. To provide a safe, dry surface for traffic, only one half of a corridor should be cleaned at a time. An example of procedures and sequences to follow when wet mopping corridors is shown in Figure 13.5.

Elevators and Escalators

Elevators. Institutional elevators receive heavy use. And, keeping elevators clean and odor-free is an important responsibility of the housekeeping and maintenance staff. People observe the conditions of their surroundings as they enter elevators and as they stand waiting to reach their floors. A dirty, trash-filled elevator projects a negative image to the public. Clean elevators provide a safer environment and are less likely to create cross-infection problems in an institution.

The best time to clean elevators is when they are not being used. If a facility is open around the clock, elevators will need to be taken out of service to be properly cleaned. The elevator doors at each floor should be cleaned inside and out on a daily basis. The signal panel on each floor should also be cleaned daily or as needed to remove fingerprints and smudges. Many elevators have stainless steel panels or doors. Stainless steel should be polished on a regular basis. Spot cleaning and vacuuming of elevators should be done on a daily basis. Thorough cleaning of elevators should be done weekly or as needed. An example of procedures and sequences to follow when cleaning elevators is shown in Figure 13.6.

Escalators. Escalators receive a high amount of traffic also. The traffic on escalators causes tar and grease to build up in the grooves of the steps. Grease and tar can cause escalator steps to become slick and dangerous. Therefore, it is necessary to thoroughly clean escalators. Escalators that receive heavy traffic should be cleaned daily. Many times, escalators are cleaned during the night when there is no traffic. An example of a procedure to follow when cleaning escalators is shown in Figure 13.7.

Procedures and Sequences for Cleaning Escalators

Equipment and Supplies

- Vacuum
- Stiff bristle brush
- Degreaser
- Metal polish
- Soft cloths
- Glass cleaner in spray bottle

Procedures and Sequences

- Place the escalator out of order according to the manufacturer's instructions.
- Vacuum the treads to remove dirt.
- Scrape gummy substances from both the escalator treads and the step-off plate using a stiff bristle brush.
- Remove grease and tar from the step-off plate using a degreaser and stiff bristle brush.
- Wash and polish the metal side panels of the escalator.
- Remove dust, fingerprints, and sticky smudges from railings with a soft cloth.
- Dust the sides and rails of the escalator.
- Clean glass or plastic shields near the escalator.

Figure 13.7

◆ *Essential Questions: Public Areas* ◆

1. Why is time devoted to policing public areas?
2. What tasks should be completed when cleaning restrooms?
3. What procedures should be followed when cleaning stairways? Corridors?
4. What procedures can be followed when cleaning elevators? Escalators?

OFFICES AND CLASSROOMS

Offices

The maintenance department or housekeeping staff is often responsible for cleaning individual offices within an institution. Offices differ from public areas in that offices are more personal spaces. Often, a variety of materials and papers are left on desks, shelves, and ledges in an office.

When cleaning individual offices, the maintenance employee must not disturb papers or personal items. Personal items can be damaged easily. For example, overspraying cleaning chemicals can damage plants. It is much easier to explain why a surface was not cleaned than to explain why important papers were misplaced or personal items damaged.

Many housekeepers are instructed not to clean desks, shelves, or ledges that have materials stacked on them. When individuals want a desk, shelf, or ledge cleaned, it is recommended that they completely clear the area. A clear area notifies the housekeeper that the surface is to be cleaned.

Basic cleaning of offices is performed daily while more time consuming tasks are done on a less frequent basis. For example, dusting of vertical furniture surfaces, walls, and vents may be done on a weekly basis. Thorough cleaning of carpeted floors and stripping and refinishing of hard-surface floors may be done only once or twice a year. Figure 13.8 provides an example of daily cleaning procedures and sequences for offices.

Procedures and Sequences for Cleaning Offices

Equipment and Supplies

- Trash container
- Supply of plastic bags
- Metal container for ashes
- Cleaner/disinfectant solution in a spray bottle
- Soft cloths
- Feather or lambswool duster
- Glass cleaner in a spray bottle
- Treated dust mop
- Wet mop
- Vacuum
- Carpet stain removal kit
- Putty knife
- Restroom cleaning and restocking supplies

Procedures and Sequences

- Empty wastebaskets into trash container.
- Empty ashtrays into metal container.
- Damp wipe wastebaskets and ashtrays with cleaner/disinfectant solution.
- Dust unobstructed horizontal surfaces such as desks, shelves, and window ledges.
- Spot clean mirrors and glass in doors and partitions using a window cleaner and soft cloth.
- Spot clean doors and walls. Remove any stickiness.
- Dust mop hard-surface floors with a treated dust mop. Spot clean with a wet mop if necessary.
- Vacuum traffic lanes in carpeted areas. Spot clean carpet if necessary.
- Clean, disinfect, and restock restroom.

Figure 13.8

BEST COPY AVAILABLE

Classrooms

Classroom cleaning presents a unique problem because of the congested area. It is difficult to cover the entire floor area with a dust mop because of the desks. One solution is to clean the room in sections. First, move all the desks to one side of the room and mop or spray buff the cleared side of the floor. Then, move the desks to the clean side and complete the floor on the other side of the room.

The usual procedure for cleaning classrooms is to dust the floor daily with a treated dust mop without moving the furniture. By using a small dust mop that can be easily maneuvered between the desks, the main traffic areas can be cleaned of dirt and litter. This prevents dirt from being ground into the floor finish. A more thorough cleaning is done on weekends or holidays. Figure 13.9 provides an example of procedures and sequences for daily cleaning of classrooms.

◆ Essential Questions: ◆
Offices and Classrooms

1. How do methods used to clean offices differ from methods used to clean public areas?
2. What procedure can be followed when cleaning classrooms?

HOSPITALITY INSTITUTIONS

Guestrooms

In hospitality facilities, guestrooms are not cleaned by starting at one end of the hall and proceeding room-by-room to the other end. Generally, hotel and resort management designates guestrooms into sections. Housekeepers are assigned certain rooms to clean in a specific section. This method ensures

Procedures and Sequences for Cleaning Classrooms

Equipment and Supplies

- Trash container
- Supply of plastic bags
- Cleaner/disinfectant in a spray bottle
- Soft cloths
- Glass cleaner in a spray bottle
- Feather or lambswool duster
- Treated dust mop
- Wet mop
- Putty knife
- Carpet stain removal kit
- Vacuum cleaner

Procedures and Sequences

- Empty all wastebaskets into trash container.
- Wipe wastebaskets with cleaner/disinfectant solution.
- Line clean wastebasket with plastic bag.
- Empty pencil sharpeners into trash container.
- Spot clean glass in doors, partitions, and insides of windows.
- Spot clean walls.
- Dust horizontal surfaces, such as window ledges and display cases.
- Dust mop hard-surface floors with a treated dust mop. Wet mop if necessary.
- Vacuum traffic lanes in carpeted areas. Spot clean carpet if necessary.

Figure 13.9

Procedures and Sequences for Cleaning Guestrooms

Equipment and Supplies

- Housekeeping cart
- Clean linen supply
- Amenity replacement items:
  - — one bath towel
  - — one hand towel
  - — one washcloth (or, one for each pillow in the guestroom)
  - — one bar bath soap
  - — one bar facial soap (some hotels use two of each)
- Gloves
- Metal container for ashes
- Disinfectant cleaner in spray bottle
- Soft cloths
- Glass cleaner in spray bottle
- Sponges
- Toilet bowl cleaner
- Toilet brush (johnny mop)
- Refills for liquid hand soap
- Toilet tissue rolls
- Wet mop
- Two mop buckets with wringer
- Plastic trash bags
- Treated dust cloths
- Vacuum cleaner

Procedures and Sequences

- Enter the guestroom following proper entry procedures (see Chapter Sixteen). Leave the door wide open while in the guestroom. Position the housekeeping cart across the entrance to the room with the linen side towards the guestroom and as close to the wall as possible. Lock the cart's wheels.
- Turn on all lights. Open drapes and window coverings for proper light. If the TV was left on, turn the TV off.
- Complete a preliminary room check (see Chapter Sixteen).
- Remove all bed linens piece-by-piece and check for stains, tears, cigarette burns, and items left in the bed. Handle linens carefully as waving them around releases bacteria and dust into the air.
- Place soiled linen into a bag on the housekeeping cart. Place linen needing special care or repairs into a separate bag designated for this purpose.
- When removing linens from the bed, do not place bedspreads, blankets, or pillows on the floor. Place them on a chair instead.
- Periodically, turn mattresses. (In some institutions, mattresses have tags on them to remind housekeepers when and how to turn them.) Allow the mattress to air while completing other tasks.
- Any bedding in need of replacement (i.e., wet mattresses; soiled bed pads; torn or soiled bedspreads; damaged or soiled pillows; or soiled, damaged, or torn blankets) should be reported to the supervisor and replacement items secured immediately.
- Make the bed using the once-around method (see Figure 13.12). This method saves time and energy since walking back and forth around the bed is eliminated.
- Straighten room furnishings. In occupied rooms, follow the standard operating procedures regarding the moving of guests' belongings. Some institutions have a policy of never touching any guests' belongings except to lift them, clean under them, and immediately replace them. If books or papers must be moved, place a marker in open books and keep papers in the same order as found.
- Straighten and replenish guest amenities. Collecting all guest amenities in the room

Figure 13.10 *(continued on page 220)*

and replacing them with new amenities may save time. The housekeeper can spend time at the end of each shift organizing guest amenities for the next day rather than spending time in each room checking the guest amenity list.

- Empty ashtrays into a metal container. Spray ashtrays with disinfectant cleaner and wipe dry.
- Clean the bathroom in this order: tub/shower and shower curtain, walls, basin and counter, toilet, and floor (refer to Fig. 13.11 for tub and shower cleaning procedures).
- Empty and reline wastebaskets.
- Dust the room beginning at the entrance and proceeding to the right or left. Use a feather or lambswool duster to dust along ceiling edges, in corners, and around light fixtures. Use a cloth to dust furniture, pictures, accessories, and windowsills.
- Vacuum the carpet.
- Complete a final room check.
- Complete the room report sheet.
- Leave the room.

Figure 13.10 - Cont'd.

Procedures and Sequences for Cleaning Guestroom Tub & Shower Area

Equipment and Supplies

- Housekeeping cart
- Amenity replacement items:
  - — one bath towel
  - — one hand towel
  - — one washcloth (or, one for each pillow in the guestroom)
  - — one bar bath soap
  - — one bar facial soap (some hotels use two of each)
- Gloves
- All-purpose cleaner in spray bottle
- Soft cloths
- Glass cleaner in spray bottle
- Sponges
- Soft scouring product

Procedures and Sequences

- Place a clean, dry towel inside the tub/shower area. The towel is used as a safety measure to make sure that the housekeeper does not slip or scratch the floor surface.
- For shower stalls, use the all-purpose cleaner and a soft cloth or sponge to clean the shower walls and soap dish. Use the glass cleaner and a soft cloth to clean the shower doors inside and out. Clean the shower stall door with all-purpose cleaner and wipe dry with a soft cloth.
- For tub/shower areas, wipe and dry the shower curtain and rod with a cloth dampened with all-purpose cleaner. Use the all-purpose cleaner and a soft cloth or sponge to clean the walls and soap dish. Clean the inside of the tub using a soft scouring product. If a tub stopper is used, pull it out of the tub and clean it thoroughly with disinfectant. Replace.
- Wipe chrome fixtures clean, including the shower head.
- Dry all surfaces and wipe all water spots from chrome fixtures.
- Reset the tub-shower area with a clean bathmat and fresh soap.

Figure 13.11

Once-Around Bed-Making Method

- Place the clean bottom sheet on the stripped bed. The sheet should be open with the fold line running down the middle of the bed.
- Tuck the bottom sheet under the mattress at the head of the bed and along the left side making square (mitered) corners.
- Place the top sheet wrong side up on the bed. Leave extra length at the head of the bed.
- Place the blanket on the bed. The blanket should be approximately nine inches from the head of the bed.
- Fold the top sheet down over the blanket.
- Tuck the top sheet and the blanket in along the left side of the bed.
- Tuck the bottom sheet under along the right side of the bed making square corners.
- Tuck the top sheet and the blanket in at the right foot of the bed making a square corner.
- Tuck the top sheet and the blanket in along the right side of the bed.
- Place the bedspread on the bed. Overhang should be the same amount on the foot and each side of the bed.
- Turn back the bedspread about twelve inches from the headboard.
- Place clean pillowcases on the bed pillows.
- Place the pillows at the head of the bed.
- Cover the pillows with the turned-back portion of the bedspread. Making a crease between the pillows and the bedspread.

Figure 13.12

that all rooms receive daily cleaning and, also, helps supervisors evaluate employee performance fairly and accurately.

For each guestroom within their section, housekeepers must check to see if any display a "Do Not Disturb" sign or have the night latch depressed. When this is the case, the housekeeper should return to those rooms after completing the assigned section. Additionally, rooms should be checked for signs indicating requests for early cleaning service. An example of procedures and sequences to follow when cleaning guestrooms is provided in Figure 13.10.

Cleaning Sequence. Generally, guestrooms are cleaned in the following sequence. Rooms requesting early housekeeping service and rooms that the front desk requests be cleaned early should be cleaned first. Checkouts and vacant rooms are cleaned next. Checkouts include those rooms assigned by the supervisor as well as any rooms the housekeeper observes being vacated during the shift. In occupied rooms, the housekeeper should ask guests when they would prefer to have cleaning services provided. Rooms requesting late housekeeping service are cleaned last. The guests' needs and desires must be considered when cleaning rooms.

Environmental Concerns. The public demand for corporations to be more conscious of environmental conditions has encouraged some hospitality facilities to revise their standard operating procedures. Thereby, some facilities stipulate that occupied rooms receive daily cleaning only when requested by the guests. Housekeepers are instructed to check the rooms daily for any needed restocking of towels and other amenities. However, in efforts to save energy, many facilities are encouraging guests to reuse towels. When guests desire fresh towels, they are instructed to leave any soiled towels in a pile on the bathroom floor. Housekeepers are instructed to replace towels in this instance. These operating procedures help save time, labor, and energy.

Productivity. In well-planned procedures, all room furnishings, accessories, and supplies have assigned positions and places. This method helps guests find needed items easily. For example, the stationery packet is placed in the desk drawer, the telephone directory is placed in the night stand drawer, and guest amenities are placed to the left of the sink. Planning for logical placement of items in the room increases productivity also. The housekeeper saves time by knowing where to look for items when cleaning. And, when every item has a designated place, making the final visual room check is easier.

Productivity can be increased also by using the once-around method for bed making. This method decreases the number of times the housekeeper must travel around the bed. As a result, time and energy are saved. The once-around method for bed making is illustrated in Figure 13.12.

◆ **Essential Questions:** ◆
Hospitality Institutions

1. What is the sequence generally followed for cleaning guestrooms?
2. Why is the once-around method for making beds more efficient than the traditional bed making method?

HEALTH CARE FACILITIES

Patient Rooms

In health care facilities, environmental services may be responsible for cleaning patient rooms due to the special operating procedures that are often necessary. These procedures include special handling of linens so that transmission of diseases are lessened, the wearing of protective clothing, and the care that needs to be taken when disinfecting rooms and equipment.

Patient rooms are cleaned in order to disinfect and create an attractive and safe environment for patients, hospital staff, and visitors. There are a variety of procedures used to clean patient rooms. It is important to develop a cleaning procedure that is most efficient and effective for the situations that occur in a particular institution. Methods used to clean patient rooms also differ based on the status of the room. For example, an occupied patient room is usually cleaned differently than an unoccupied room. Examples of procedures and sequences for cleaning patient rooms are shown in Figures 13.13 and 13.14.

Isolation Rooms

When a person has a communicable disease, a health care facility may isolate the person to prevent transmission of the disease to others. Isolation requires the following:

- Placing the patient in a room with no other occupants.
- Allowing no visitors except for medical personnel.
- Keeping the room as free from pathogens as possible.
- Following certain procedures for cleaning the room.
- Transporting supplies into the room and trash and wastes out of the room using methods that minimize the likelihood of transmitting disease.

Procedures and Sequences for Cleaning Occupied Patient Rooms

Equipment and Supplies

- Large cleaning cloths
- Cleanser
- Disinfectant/cleaning solution in a spray bottle
- Disinfectant bowl cleaner
- Toilet brush (johnny mop)
- Glass cleaner in spray bottle
- Treated dust mop
- Wet mop
- Two mop buckets with wringer
- Covered trash container
- Wastebasket liners
- Supplies for restocking room

Procedures and Sequences

- Clean the occupied bed by requesting that the patient move to a nearby chair. Assist the patient to the chair. If the patient is unable to move or sit in a chair, the bed linens may be changed when the patient is taken to the bathroom, the shower, or when the patient is undergoing treatment that requires them to be out of the room. Cleaning an occupied room may be prearranged with the nursing staff on duty.
- Damp dust windows and windowsills, walls, air conditioning unit, vents, and all furniture.
- Disinfect the telephone by spraying with disinfectant solution. Wipe dry using a clean cloth.
- Wash and dry the sink, liquid soap dispenser, toilet, shower, tub, mirror, wastebaskets, toilet paper dispenser, paper towel dispenser, ceramic tile walls, and partitions.
- Dust mop floors.
- Wet mop and rinse floors.
- Empty wastebaskets into the trash container and insert fresh wastebasket liners.
- Check for and restock needed supplies.

Figure 13.13

Procedures and Sequences for Cleaning Unoccupied Patient Rooms

Equipment and Supplies

- Feather or lambswool duster
- Large cleaning cloths
- Treated dust mop
- Wet mop
- Two buckets with wringer
- Disinfectant/detergent solution

Procedure

- Dust furniture, switch plates, door handles, telephone, restroom fixtures, and furnishings.
- Dust mop floors with a treated dust mop.
- Remove cobwebs from walls and ceiling.
- Check draperies, shades, blinds, windows, floors, and walls. Clean if necessary.
- Wet mop floors every third day the room remains unoccupied.

Figure 13.14

Procedures. Generally, the environmental services department is responsible for cleaning isolation rooms. Procedures for cleaning isolation rooms are essentially the same as procedures used to clean other types of patient rooms. Isolation rooms differ in that all furniture and mattress covers are cleaned with a disinfectant/detergent solution, and floors are wet-vacuumed or mopped with a disinfectant solution. Walls and other surfaces are also cleaned with a disinfectant. Fresh disinfectant solutions should be mixed for each isolation room being cleaned. Following use, housekeeping equipment used in isolation room cleaning should be disinfected. Isolation rooms are usually the last rooms to be cleaned each shift.

Hand Washing Procedures. Environmental services employees should wash their hands before entering and upon leaving isolation rooms. Skin provides an ideal place for many microorganisms to live and reproduce. The health care employee's hands are the greatest source of contamination. Bacteria can be spread through carelessness in hand washing procedures. An employee can spread infection to other people as well as infecting themselves. Therefore, hand washing should be both frequent and thorough.

To properly wash hands, environmental services employees and health care workers should follow steps as described and depicted in Chapter Nine. In health care institutions, it is especially important that hand washing procedures be carefully followed to prevent spread of contaminants. After washing and rinsing correctly, the worker should not touch the faucet with clean hands. Review Figure 9.2 on page 140.

Waste Disposal. All disposable items and wastes in an isolation room should be discarded in a trash container lined with a heavy plastic bag. When trash is collected, it is double bagged. The term ***double bagged*** refers to closing and tying the bag in the trash container and placing it in a second heavy plastic bag (often red in color for easy identification) that is closed securely. This waste is transported by safe methods to an incinerator or to another area for disposal. In some large health care facilities, isolation waste, as well as other waste, is placed in a large autoclave for sterilization before disposal.

Linen. Linen from an isolation room should be carefully removed from the bed with little extra movement of the linen so that pathogens do not become airborne. Isolation room linen is also double bagged. The first bag is usually a type that will dissolve in hot water. The outside bag is clearly identified as isolation linen by a specific label or color.

Protective Clothing. The environmental services staff responsible for isolation room cleaning are usually required to wear disposable protective clothing. Usually, this protective clothing consists of a cap, gown, mask, and gloves. Before entering the isolation room, the employee should put on protective clothing and a facemask.

Protective clothing is removed and placed in the trash before exiting the room. Any clothing and cleaning equipment that can be laundered, such as mops and cleaning cloths, should be placed in double bags to be transported to the laundry. Examples of procedures and sequences to follow when cleaning occupied isolation rooms are provided in Figure 13.15. Examples of procedures and sequences to follow when cleaning isolation rooms upon patient discharge are provided in Figure 13.16.

Procedures and Sequences for Cleaning Occupied Isolation Rooms

Equipment and Supplies

- Protective clothing
- Supplies for stocking bathroom (i.e., paper hand towels, toilet paper rolls, liquid soap)
- Disinfectant/detergent solution
- Plastic trash bags
- Soft cloths
- Feather or lambswool duster
- Disinfectant bowl cleaner
- Toilet brush
- Clean treated dust mop
- Clean damp mop
- Two mop buckets with wringer

Procedures and Sequences

- Put on appropriate protective clothing before entering the occupied isolation room.
- Wash hands and/or wear protective gloves.
- Clean and fill the paper towel dispenser, toilet paper dispenser, and liquid soap dispenser.
- Place disinfectant/detergent solution in the sink.
- Remove the plastic bag from the wastebasket. Place this bag in a second bag and seal. Identify the waste as isolation waste.
- Wipe the wastebasket using a cloth dipped in disinfectant/detergent solution.
- Remove soiled linen and place in bags used especially for soiled linen.
- Damp dust furniture, fixtures, and windowsills using a cloth dipped in disinfectant/detergent solution.
- Spot clean walls, ceilings, windows, doors, and light fixtures.
- Dust walls and remove cobwebs.
- Clean the medicine cabinet, bathtub/shower, sink, and the pipes under the sink using the disinfectant/detergent solution.
- Spot clean bathroom walls and light fixtures.
- Clean toilet using the disinfectant toilet bowl cleaner.
- Dust mop the floors of the isolation room and bathroom with a mop used specifically for cleaning isolation rooms.
- Straighten furniture and draperies.
- Remove equipment and supplies from the room.
- Remove protective clothing and place in the designated receptacle.
- Wash hands and arms following the correct hand washing procedure.
- Place equipment and supplies in the proper storage area and clean with a disinfectant solution.
- Wash hands and arms following the correct hand washing procedure.

Figure 13.15

Procedures and Sequences for Cleaning Isolation Rooms Upon Discharge

Equipment and Supplies

- Protective clothing
- Laundry bags
- Trash bags
- Disinfectant/detergent solution
- Soft cloths
- Feather or lambswool duster
- Disinfectant bowl cleaner
- Toilet brush
- Supplies for stocking bathroom (i.e., paper hand towels, toilet paper rolls, liquid soap)
- Clean treated dust mop
- Clean wet mop
- Two mop buckets with wringer
- Disinfectant solution
- Clean draperies
- Clean linens

Procedures and Sequences

- Put on appropriate protective clothing before entering the isolation room.
- Wash hands and/or wear protective gloves.
- Place disinfectant/detergent solution in the sink.
- Remove the plastic bag from the wastebasket. Place this bag in a second bag and seal. Identify the waste as isolation waste.
- Wipe the wastebasket using a cloth dipped in disinfectant/detergent solution.
- Remove soiled linen, including soiled draperies, and place in bags used especially for soiled linen.
- Dust all furniture, fixtures, windowsills, vents, and doorknobs.
- Damp dust all furniture, fixtures, windowsills, vents, and doorknobs, using a cloth dipped in disinfectant/detergent solution.
- Disinfect the bed and mattress.
- Wash and disinfect the walls.
- Clean the medicine cabinet, bathtub/shower, sink, and the pipes under the sink using the disinfectant/detergent solution.
- Clean and fill the paper towel dispenser, toilet paper dispenser, and liquid soap dispenser.
- Clean bathroom walls and light fixtures.
- Clean toilet using the disinfectant toilet bowl cleaner.
- Dust mop the floors of the isolation room and bathroom with a clean, treated dust mop used specifically for cleaning isolation rooms.
- Wet mop the floors of the isolation room and bathroom with a clean, treated dust mop used specifically for cleaning isolation rooms
- Straighten furniture and hang clean draperies.
- Place clean linens on the bed.
- Remove equipment and supplies from the room.
- Remove protective clothing and place in the designated receptacle.
- Wash hands and arms following the correct hand washing procedure.
- Place equipment and supplies in the proper storage area and clean with a disinfectant solution.
- Wash hands and arms following the correct hand washing procedure.

Figure 13.16

◆ *Essential Questions: Health Care Facilities* ◆

1. How do the cleaning procedures for occupied patient rooms and unoccupied patient rooms differ?
2. Why are procedures for cleaning isolation rooms more thorough than those used to clean regular patient rooms?
3. How does the procedure for cleaning isolation rooms upon discharge differ from the procedure for cleaning occupied isolation rooms?
4. What are steps to follow for proper hand washing?

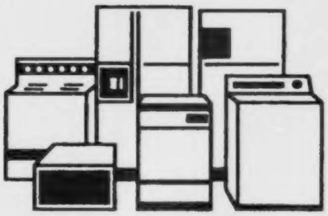
FOODSERVICE FACILITIES

Kitchens

Kitchens of foodservice facilities require a high degree of cleanliness and sanitation. As the number of food handlers and food consumers involved in daily operations increases so, too, does the need for safe and sanitary conditions. Food serves as a medium for rapid growth of bacteria and molds. It also attracts insects and rodents. Handling food during preparation and serving provides additional opportunities for contamination.

Equipment. Smooth surfaces allow appropriate sanitizing procedures to be effective. Therefore, all surfaces that come into contact with food should be smooth and easy to clean. Equipment and work surfaces should be nonabsorbent and free from cracks or spots where soil may lodge. Additionally, equipment should be movable or raised from the floor to allow easy cleaning. Equipment surfaces should be designed to withstand repeated scrubbing and disinfection.

Cleaning. In most foodservice facilities, the foodservice personnel perform the housekeeping and maintenance routines for kitchen areas. This is because foodservice employees tend to be more careful during food preparation and serving when they are responsible for cleaning the area. When the foodservice employees are responsible for cleaning, the housekeeping and maintenance staff may be responsible for cleaning some or all of the following:

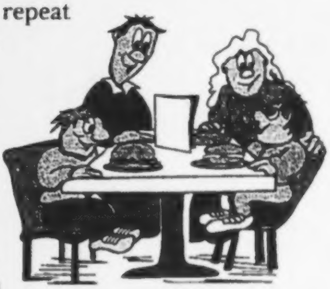


- Hard-surface floors
- Carpets
- Upholstery
- Walls
- Interior and exterior windows
- Light fixtures
- Restrooms
- Decorative accessories

Pests. Even when housekeeping procedures are performed properly, pests are sometimes transported into an institution on food packages and clean laundry packages. Rodents and insects are often found in food storage areas. To help keep food-handling facilities free from pests, stored food should be kept dry and protected from sweating walls, dripping pipes, and damp floors. Additionally, food should not be stored on the floor, and a safe extermination program should be carried out to help control pests. Steps to follow for controlling pests are listed:

1. Keep area clean.
2. Remove and dispose of all trash frequently and completely.
3. Use screens in areas where insects are prevalent.
4. Keep facilities in good repair. For example, seal cracked wall and floor surfaces.
5. A program of chemical pest control should rid the entire property of all insects and pests.

Dining Areas



An attractive atmosphere contributes to enjoyable dining. Facilities spend large amounts of money in creating an attractive atmosphere. First-time patrons become repeat customers when they are served attractive, delicious food in a clean and orderly dining area. Managers should consider the cleaning and maintenance of the dining area as important as the foods being served. The image of an establishment can be damaged when dining areas are dirty, cluttered, or smell musty and greasy.

Equipment. Small equipment, such as carpet sweepers, lobby dustpans, toy brooms, fresh cleaning cloths, and spray cleaner, should be available in or near the dining area. Foodservice personnel can quickly clean accidental spills and keep the area looking clean when cleaning equipment is readily available. Time is saved and the surfaces of furnishings and equipment are protected when foodservice personnel perform basic housekeeping tasks. Then, the housekeeping and maintenance staff can concentrate on the regular tasks of keeping the area clean and sanitary.

Procedures. Cleaning procedures used to maintain dining areas vary depending on the amount of cleaning responsibility assumed by the foodservice personnel. Usually, foodservice personnel clean tables and counters and may place clean linens for the

Procedures and Sequences for Cleaning Dining Areas

Equipment and Supplies

- Dust cloths
- Polish
- Whisk broom
- Sponges
- Dust pan
- Toy broom
- Vacuum
- Detergent cleaner in spray bottle

Procedures and Sequences

- Move systematically around the area, wiping table legs or posts, floor vents, and window or architectural ledges.
- Polish chrome furniture regularly since it shows fingerprints easily.
- Brush the crevices or tufts of seats with a whisk broom to remove crumbs and dust.
- Wipe vinyl upholstery with a damp sponge or cloth to remove sticky matter or dust.
- Dust wood chairs, bar stools, and side furniture. Polish wood furniture on a rotating basis. Polish a few pieces each night or week so that all have been polished within a specified time period.
- Pick up large pieces of litter or use a lobby dustpan and toy broom to remove large trash items before vacuuming.
- Pull chairs away from tables and vacuum around each table.
- Replace chairs.
- Spot-clean walls and switch plates.
- Clean light fixtures, walls, and hard-surface floors on a project basis.

Figure 13.17

next day's service. The maintenance or housekeeping department performs the heavier cleaning duties. These duties include such periodic cleaning tasks as carpet shampooing, wall washing, and cleaning light fixtures. An example of procedures and sequences to follow when cleaning dining areas is provided in Figure 13.17.

◆ Essential Questions: ◆ Foodservice Facilities

1. Why do foodservice facilities require a high degree of cleanliness and sanitization?
2. What duties may housekeepers perform in dining areas?

EXTERIOR MAINTENANCE

Equally important to the care given to the interior of a building is the care given to the exterior of a building. Exterior maintenance should be just as thorough as interior maintenance. Cleanliness of exterior porches, steps, and walkways are important for public safety as well as for a neat appearance. Some of the exterior areas that must be maintained in order for an institution to present a favorable image are listed:

- Lawn areas
- Planted areas
- Walkways
- Parking lots
- Swimming pools
- Spas

Public Grounds

Occasionally, a separate maintenance or grounds staff maintains exterior areas. Lawn and planting bed maintenance may be contracted to professionals. In smaller institutions, however, the maintenance and housekeeping department may be expected to perform exterior cleaning tasks. Employees may water plants and lawns, pick up and dispose of trash, and sweep exterior walks.

The public grounds are the first and most frequently viewed areas of an institution. Litter can spoil the appearance of grounds. And, litter on school grounds can cause injuries. Paper, broken glass, cans, rocks, sticks, and other litter must be removed and disposed of on a daily basis. A canvas bag and a litter picker can aid in the removal of litter.

Walkways

Walks should be swept weekly. Daily sweeping may be necessary during bad weather or in areas receiving heavy traffic. A push broom is used for most exterior sweeping chores. The rougher the surface to be swept, the firmer the bristles of the broom need to be.

During winter months, the maintenance department may be responsible for removing snow and ice from sidewalks to keep them safe and accessible. The process of snow removal should begin as soon as possible after a snowfall. Sidewalks and entryways should be cleared first. A hand shovel designed for snow removal can be used to clear light snow from these areas. If snow is deep, special equipment may be necessary. Commercial companies can remove snow from parking lots and driveways.

Ice poses a great hazard to pedestrians in winter. Applying sand or salt products to ice make it melt faster. Also, these products create a rough surface providing a safer surface for walking. Sand or salt should be placed on steps and inclines first and then on flat walkways. Once the ice melts, the sand or salt should be washed from the walkway.

Heavy or prolonged use of ice remover may cause pitting and erosion of concrete. Ice removers also leave a white residue that can be tracked into buildings. Walk-off mats can help keep salt residue from being tracked into other areas of a building. It is also important to remove sand or salt since the runoff can kill plants.

Parking Lots

Parking lots should be swept regularly or as needed. Power equipment is necessary for effective parking lot maintenance. An institution may own a small litter vacuum or a larger riding vacuum. Many institutions arrange for private companies to provide parking lot maintenance.

Pools of oil left by vehicles are often a problem in parking lots. An oil-absorbing powder can be applied to oil stains. When the oil is absorbed, the powder can be swept away. A caustic degreaser can remove old oil and grease stains from concrete. Petroleum solvents should not be used to clean asphalt drives because the solvent will dissolve the asphalt.

Swimming Pools and Spas

In some hospitality and health care facilities, the maintenance and housekeeping department may be responsible for cleaning and maintaining swimming pools and spas. Swimming pools are found in school settings also.

Swimming pool and spa maintenance may include chlorination, filtration, heating, and cleaning. Furniture, equipment, and the area surrounding the pool must be cleaned and maintained. The companies who installed the pool or who supply chemicals for the pool can be contacted to obtain further information on properly maintaining a pool. Some institutions hire private businesses that supply complete pool maintenance. Daily tasks for maintaining the area surrounding a pool include the following:

- Police the lawn and grounds in the pool area several times a day to remove trash.
- Use a water hose to wash the deck area. Then use a stiff brush to push the water and trash away from the pool.
- Wipe chairs with a dry, clean cloth to remove visible water and suntan oils. Washing outdoor furniture with a detergent solution will keep the cushions and furniture clean and prevent deterioration caused by suntan oils. In bad weather, the furniture should be moved to a protected area.

- Make sure ashtrays and covered wastebaskets are readily available for use by guests.
- Make certain the following swimming pool equipment is available:
  - brush with pole
  - surface skimmer net with pole
  - vacuum with pole and hose
  - garden hose for washing down pool decks
  - Shepard's hook (for safety)
  - life ring
  - posted pool rules and regulations (usually a state requirement)
- Spas require the same maintenance and daily care as swimming pools. The maintenance staff should ensure that the following requirements are met:
  - spa water temperature should not exceed 103°F.
  - posted warning signs advising guests about overexposure to the heat.
  - posted warning signs recommending that another person be present when someone is in the spa.

◆ ***Essential Questions: Exterior Maintenance*** ◆

1. Why is exterior maintenance as important as interior maintenance?
2. What types of cleaning procedures may institutional maintenance employees be required to perform on the exteriors of buildings?
3. What are examples of daily tasks for swimming pool area maintenance?

FLAG DISPLAY

A member of the institutional maintenance and housekeeping department may be responsible for raising the flags each morning and lowering them at night. There is a specific ***flag protocol***, or set of ceremonial rules, that must be observed when handling the United States flag and individual state flags.

Exterior Flags

The U.S. flag is displayed in the open from sunrise to sunset. It is never displayed in inclement weather. If other flags are flown on the same pole, the U.S. flag is always at the peak. If there are adjacent poles, the U.S. flag is raised first and flown highest. Other flags are raised and lowered below the level of the U.S. flag. When lowering flags, the U.S. flag is lowered last. The U.S. flag may be flown permanently if it is lighted.

Half-mast, also referred to as ***half-staff***, means flying the flag at a position halfway between the top and the bottom of the pole. Half-mast is a sign of mourning used to commemorate certain holidays remembering armed forces personnel killed in war, such as Memorial Day and Veteran's Day. Half-mast is also used to honor the memory of a noted American who has died. When a flag is to be flown at half-mast, it is first hoisted to the peak for an instant and then lowered to the half-staff position. The flag is quickly raised to the peak again before being lowering at the end of the day. Protocol for flag display is described in Figure 13.18.

Interior Flags

Certain protocol applies to flags displayed indoors also. When displayed on a speaker's platform, the U.S. flag should always be above and behind the speaker. The U.S. flag should never be draped over the front of a podium or platform. If the U.S. flag is displayed in a stand on a stage, the stand should be placed to the speaker's right (the audience's left). When the U.S. flag is displayed from a staff that stands off a stage or platform, it should be placed to the audience's right. State or association flags should be placed opposite the U.S. flag when displayed indoors.

Flag Disposal

The U.S. flag should never be displayed, fastened, used, or stored in a manner that would permit it to be torn, soiled, or damaged. U.S. flags that are flown daily will begin to wear along the striped end and may fade. Once a flag is in a condition no longer suitable for display, it should be destroyed in a dignified manner.

The United States Flag Code states: "The Flag, when it is in such condition that it is no longer a fitting emblem of display, should be destroyed in a dignified way, preferable by burning." Commonly, volunteer organizations throughout the United States carry out this duty as an act of community service. These organizations destroy old, worn, tattered, frayed, and faded flags.

The National Flag Foundation recommends two ceremonies for retiring and destroying a worn flag. Both ceremonies should be conducted at a private, non-public location. The first ceremony is a Ceremony of Final Tribute. Here, only one flag is used. This flag represents all those to be destroyed. Following the Ceremony of Final Tribute is the Ceremonial Burning. The burning of a flag should take place in a ceremony separate from the Ceremony of Final Tribute. Both of these ceremonies are conducted with sincere respect and honor to the flag.

◆ Essential Questions: Flag Display ◆

1. What are examples of protocol that should be followed when handling the United States flag?
2. Under what circumstances should a flag be destroyed?
3. What is the proper method for flag disposal?

United States Flag Display Protocol

★ The US flag should be carried to the flag pole and attached. The blue field should be at the top.

★ The flag should be unfurled (held away from the pole so that it does not get tangled) and hoisted quickly to the top. The United States flag is always the peak flag on a single flag pole or raised first and flown at the highest level if there are adjacent flag poles.

★ When the flag is lowered, it is done so slowly and with dignity. The flag should never touch the ground, the floor, water, or merchandise.

★ The flag should be handled with respect. It should never be wadded up. The flag should be folded properly before being stored. At least two people usually fold the flag. However, one person can fold the flag by placing it on a table. The flag should never be placed on the floor or on the ground to be folded. Steps for folding the US flag are as follows:

— Fold the flag lengthwise with the face out.

— Fold lengthwise again with the stars on the outside.

— Start at the striped end and bring the lower corner parallel to the upper edge to form a triangle.

— Turn the outer point inward on the upper edge to form a second triangle.

— Continue folding the flag in triangles until the entire length of the flag is folded. When the flag is completely folded, it should be triangular in shape with only the blue field and three stars visible on top. Tuck the binding to the inside underneath the top fold.

— Store in a safe, appropriate place.

Figure 13.18

Chapter Highlights

- The management process is used by individuals and businesses to accomplish desired outcomes through planning, controlling, implementing, and evaluating.
- Plans are guidelines for the future. They are developed to meet demands, resolve problems, and reach goals.
- Decision making, physical action, and coordinating are necessary in order to implement plans.
- Public areas such as foyers, lobbies, corridors, and dining areas should be policed regularly in order to maintain an institution's positive image.
- When cleaning stairways or corridors, the institutional maintenance employee should maintain a safe area for traffic and avoid blocking an entire corridor or stairway.
- In order to project a positive image and maintain a safe environment, housekeepers must clean elevators and escalators regularly when they are not being used or when traffic flow is light.
- Guestrooms are cleaned according to specific assignments made on the basis of occupancy and requests of guests and the front desk.
- A variety of procedures are used to clean patient and isolation rooms. The goal of cleaning is to disinfect and create an attractive and safe environment for patients, hospital staff, and visitors.
- Institutional maintenance employees are often required to provide cleaning services to such areas as kitchens, dining areas, lawns, driveways, parking lots, walkways, and swimming pools.
- Proper flag protocol should be followed when displaying the United States flag both outdoors and indoors and when storing the flag.

Chapter 14

Time Management and Work Simplification

Chapter Focus

The following Essential Knowledge and Skills are discussed in this chapter:

6A Analyze principles of time management and work-simplification when performing assigned tasks.

6C Predict the impact of effective time management and work simplification on the cost of institutional maintenance.

10D Evaluate the relationship of good physical and mental health to job success and achievement.

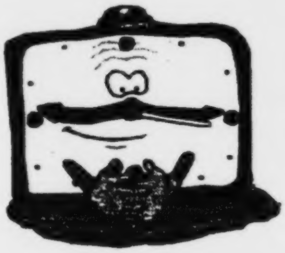
Chapter Vocabulary

- dovetailing
- fatigue
- limited resource
- maximum reach zone
- motion study
- normal reach zone
- organization
- prioritizing
- procrastinating
- task analysis
- time log
- time management
- time robbers
- time study
- work simplification

TIME MANAGEMENT

Time is a limited resource that all people have in common. A ***limited resource*** is an asset that cannot be increased. Everyone has exactly the same amount of time each day, each week, and each year. Time is considered the most valuable resource because it controls and limits how other resources are used.

The method a person uses to manage or organize time is known as ***time management***. Studying time management principles and work simplification techniques enables a person to make better use of time and accomplish more. People who accomplish many tasks in a day are usually good time managers.



Time Analysis and Planning

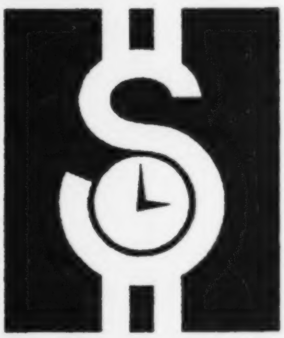
Time management is a continuing process of analysis and planning. Improving the use of time requires examining how time is currently being used. This may require a method or system of recording how much time is used each day to complete tasks such as cleaning, organizing storage, planning tasks, receiving telephone calls, and writing reports. Until it is known exactly how much time is being used or is required for each task, effective use of time cannot be planned.

Overestimating or underestimating the amount of time required for a task can result in time wasted. Certain parts of each day, such as work hours, school hours, and appointment times, are set and cannot be changed easily. The time remaining in a day, however, can be planned for better management. Planning should be considered an investment that allows a person to use time more effectively in the future.

Time As a Resource

Time is an integrative resource because it is used along with other resources. For example, institutional maintenance employees follow standard operating procedures (SOPs). These written procedures designate both the amount of time necessary for completing a task and the equipment and materials required for the task. Working with equipment and completing a task within certain time restraints is using time as an integrative resource.

Time is interchangeable. Time can be exchanged for money and money can be exchanged for time. An example of time being exchanged for money is when institutional maintenance employees exchange their time for the salary paid by their employer. And, money being exchanged for time occurs when employers pay a salary for an employee's time on the job. Additionally, time can be exchanged for energy, and energy can be exchanged for time. For example, performance can be increased in order to have time to do other activities.



Time can be used to reach important achievements. Identifying values and setting goals encourages a person to be more skilled in planning the use of time. Goals can be ranked in order of importance or according to the projected time for completion. When a person has a clear idea of goals, time management is easier since all available time is focused toward accomplishing identified goals.

◆ *Essential Questions:* ◆
Time Management

1. Why is time considered a limited resource?
2. How is time management used to improve the use of time and other resources?

TASK ANALYSIS

Task analysis occurs each day as employees follow established procedures. ***Task analysis*** involves assessing tasks and questioning procedures to determine if tasks can be accomplished in a more efficient manner. Often, task analysis is conducted through a motion and time study.

Motion and Time Study

A motion and time study is conducted through a review of workers' motions as tasks are performed and then measuring the time these motions require. Companies often invest large amounts of money in these studies. Motion and time studies are usually conducted by outside consulting firms that specialize in helping companies increase production, reduce waste, improve efficiency, and increase profits. Some companies arrange for in-house motion and time studies and involve employees in the evaluation. These evaluations require time, and plans must be developed, tested, and implemented.

The main purposes of a motion and time study are as follows:

- **Determining the best methods of performing each task:** By breaking each job into its component elements and observing the time required to perform each element, management can determine the most efficient methods to be used.
- **Planning work:** Knowing the standard time required to perform an operation is valuable to management in preparing work schedules. When time standards are set for a variety of tasks, management can use them to estimate the time needed to accomplish new tasks.
- **Controlling operating costs:** When using established time standards, comparisons can be made between the standards and the actual performance of workers. Differences can be noted, and remedial measures can then be applied to bring the actual performance up to standard and control the costs of labor.

Motion Study. ***Motion study*** is the first step in task analysis. In this step, a careful study is made of all the motions that are required to complete a task. The worker's motions are observed as well as the physical conditions surrounding the job site. Physical conditions may include the distance from the housekeeping cart to the inside of the room to be cleaned, the supplies to be used, the lighting, and any other factors that may affect the job.

The main purpose of motion study is to establish the most effective method of performing a task. A skilled observer can quickly detect wasted movements and suggest ways to obtain better performance. A series of essential motions that will produce the best results can be listed, and each of these basic motions can then be timed.

Eliminating unnecessary steps or combining steps or motions can result in greater production with less fatigue. Changing the location of a task or the time of day a task is completed may increase performance. Sometimes workers are more efficient when tasks or motions are arranged in a different order or sequence. Often, two or more tasks can be started simultaneously with little additional energy expended.

Performing two or more tasks simultaneously is referred to as ***dovetailing***. Institutional maintenance employees may use dovetailing techniques throughout their shift. For instance, when cleaning restrooms, a housekeeper may apply acid bowl cleaner to one or more toilet bowls. Then, while the acid is working on the stains, the housekeeper goes about completing other tasks, such as cleaning mirrors.

During the course of each workday, a housekeeper will make many body movements in order to perform assigned tasks. Some of these movements are unnecessary and they waste time and energy. Most housekeeping departments have developed specific procedures to save time and effort. These procedures may result from experience or motion and time studies.

Housekeepers trained to follow specific procedures can clean more efficiently with less effort. Managing energy is as important as managing time. Having supplies and equipment near the work area saves wasted motion.

Time Study. The ***time study*** process requires considerable experience and training on the part of the observer. Equipped with a stopwatch and an observation sheet for recording data, a trained observer assumes that everything a worker does during a specific task or job cycle can be observed. Each basic motion is timed and recorded on the observation sheet. The observation continues until as many as fifty job cycles have been completed.

During a time study observation, the observer notes all actions and delays that occur during the task performance. Although some delays may be necessary, they can keep a person from completing important tasks. Therefore,, delays are referred to as ***time robbers***. Common time robbers include the following:

- Long conversations with supervisors or coworkers
- ***Procrastinating*** (putting things off)
- Daydreaming
- Interruptions
- Repetitious tasks that could be revised or reassigned
- Attempting to complete too many tasks at once

In many cases, delays and interruptions, whether intentional or unavoidable, are the major reasons for inefficiency. By eliminating unnecessary interruptions, workers can become more productive.

Motion and time observances are recorded using a time log. A ***time log*** divides the day into ten- to fifteen-minute intervals or into time-use categories. Time-use categories include the following:

- Cleaning production
- Breaks and lunch
- Handling interruptions
- Assembling supplies and equipment
- Cleaning equipment and supplies
- Restocking the housekeeping cart

If the tasks performed each day are similar, only one day or portions of one day may be studied. Other time studies examine tasks over a longer period of time. Using the time log recordings, the observer calculates the amount of time needed for completing a specific task. Once all tasks are noted on the time log, a careful analysis by a motion and time specialist begins.

A motion and time specialist studies the time log and asks specific questions. Based on the answers to the questions, the specialist makes recommendations for a more efficient work procedure. Examples of questions are as follows:

- Who is responsible for the task?
- How much time is spent on the task?
- Is the task necessary? Can any parts of it be eliminated?
- What parts of each task can be changed to reduce fatigue?
- Can any parts of the task be combined?
- How often do interruptions occur? Can they be eliminated or reduced?
- Are harder tasks performed early in the day or are they avoided?
- Is too much time spent on easier or more enjoyable tasks?
- Are new activities begun before others are completed?
- Can the order of the steps be rearranged?
- Can the order of the materials and equipment needed be rearranged to improve performance?
- Can any activities be dovetailed (performed simultaneously)?
- Is there a more simple way to perform activities?

Time analysis problems are increased when an entire work team is considered. The time management of each person affects other people in the work team. Communication is a key to effective teamwork. By analyzing the time spent by an entire team and by pointing out both external and internal time robbers, an institutional maintenance department can develop a plan and set appropriate goals for improving time management.

◆ Essential Questions: ◆ Task Analysis

1. Why do institutions invest in task analysis?
2. How do motion studies and time studies differ?
3. How do motion studies benefit an institution?
4. How and for what purpose are time studies conducted?
5. How can time robbers be eliminated?

GOALS AND PRIORITIES

Setting Goals

Setting goals and priorities is an important part of time management. A housekeeper's goal might be to clean sixteen guestrooms or to strip the floor finish in a lobby. A goal cannot be attained unless preliminary steps are accomplished. Therefore, tasks or activities needed to attain a goal must be defined. For each task, employees must know what is to be accomplished and the expected results. Management should list key tasks along with expected results or measurable outcomes.

Setting Priorities

Tasks should be placed in the order or sequence to be completed. Once resources such as equipment, supplies, personnel, and time are determined, the tasks can be arranged in a time frame for completion. The executive housekeeper may then prioritize the list of goals. ***Prioritizing*** involves listing the goals in the order of importance. When the goals are prioritized, the work schedule for the week or month is easier to prepare.

◆ Essential Questions: ◆ Goals and Priorities

1. Why is goal setting an important part of time management?
2. Why is prioritizing an important part of time management?

WORK SIMPLIFICATION

Work simplification is based on motion economy. Techniques for simplifying work are developed as a result of motion and time studies. Motion studies can help each employee be more motion conscious and eliminate unnecessary or inappropriate motions.

Work simplification is determining the simplest and quickest method for accomplishing a task. The primary goal of work simplification is to conserve such resources as supplies, time, and energy. When energy is conserved, fatigue is reduced.

New products help simplify work also. In the past, a cleaning solution had to be scrubbed to produce cleaning action. Today, chemicals clean upon application and just need to be wiped off. The absence of scrubbing saves energy, motion, and time.

Additionally, availability and types of equipment and supplies affect work simplification techniques. For instance, most maintenance personnel no longer use buckets and sponges for cleaning walls. Instead the work is simplified through the use of a wall-washing machine. Further, keeping equipment maintained and in good working order helps in work simplification.

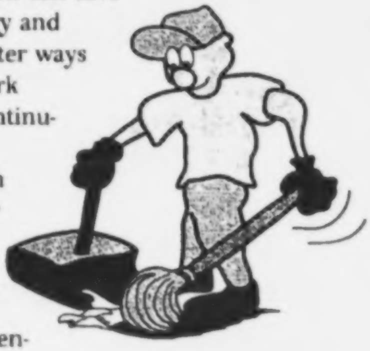
By simplifying work sequences, nonessential parts of a task are eliminated. The remaining tasks are placed in a logical order that reduces repeated motion and fatigue. Many jobs become easier and more enjoyable when tasks or motions are eliminated, combined, rearranged, or simplified.

Along with time management, work simplification techniques are developed through organizing and economizing motion. Examples of work simplification include the following:

- Rearrange work or storage space.
- Organize storage space.
- Keep the housekeeping cart properly stocked.
- Store equipment and supplies where they will be used first.
- Place duplicate pieces of much used and less expensive equipment in several accessible areas.
- Use ergonomic designs:
  - Build storage areas to match human specifications.
  - Design adaptable storage areas. For example, design areas containing movable shelves.
- Observe the following guidelines when storing items:
  - Store items so they are easy to see, reach, and grasp.
  - Place only identical items behind one another.
  - Group items that are used together.
  - Stack unlike items only one row deep and one layer deep.
  - Place items at convenient heights.
  - Provide room at the top and sides for grasping and replacing items.
  - Turn items so they are most easily reached and grasped.

Work simplification techniques can be incorporated into any procedure. An action plan can be developed that puts tasks in sequence, considers all resources, puts the plan into a time frame, and sets dates for completion. Without a time frame, tasks may be done prematurely or they may be delayed. By learning and using certain rules of motion economy, the maintenance staff can improve work methods and use less energy.

There is no magic formula for solving all the problems encountered by maintenance and housekeeping employees. Being aware that organization can save time and energy and looking for better ways to organize work should be a continuous process. Employees with suggestions for saving time and energy should bring these to the attention of a supervisor.



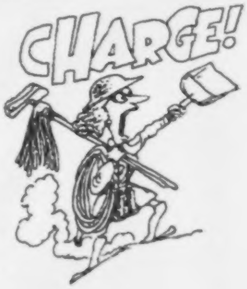
The relationship of space, equipment, supplies, and motion are all factors to be considered when organizing work. Adjusting workspace to minimize reaching and bending reduces fatigue. When designing workspace and storage areas, two zones should be considered. One is the maximum reach zone. The ***maximum reach zone*** is the circle formed by the length of the arms. All action should occur within this zone. The normal reach zone is the other. The ***normal reach zone*** is the circle reached by arms bent at the elbow. The bulk of a task should be done within this zone.

◆ Essential Questions: ◆ Work Simplification

1. In what ways can work be simplified?
2. Why is it important to incorporate work simplification techniques into procedures?
3. What two zones should be considered when designing workplace and storage areas? Why?

EMPLOYEE FATIGUE

Fatigue is the decreased ability to function due to prolonged exertion or repeated stimulation. Physical or mental exhaustion is usually the result of labor or hard work. In heavy manual labor jobs, for example, many short rest periods may increase productivity. Fatigue on the job may be caused by any of the following:



- Poor working conditions
- Inefficient working procedures
- Physical exertion
- Mental or physical work performed in an uncomfortable or unnatural position
- Unpleasant tasks
- Stress resulting from a deadline
- Stress caused by work judged according to performance standards

Boredom

Boredom can cause fatigue also. When tasks are repetitious, completed with no reward, or uninteresting, employees may become bored. Often, boredom results when an employee does not see the importance of the task being performed. When this is the case, supervisors should make certain that employees are provided with reasons why tasks are assigned and completed according to standard operating procedures.

Tasks perceived as boring may or may not be monotonous. Although monotonous tasks often become so automatic that they produce boredom. Housekeeping tasks may appear monotonous and lead to boredom.

Supervisors can reduce or eliminate boredom by adding new interest to a job. This can be accomplished through offering variety or reward. However, the housekeeper who enjoys serving clients and who receives satisfaction from creating a clean, orderly environment will not be bored and will feel less fatigue.

Personal Contributing Factors

Factors in an employee's personal life, such as lack of sleep, problems at home or with relationships, or improper diet, may cause fatigue. Getting the correct amount of sleep is important. Too little sleep can create fatigue quickly while too much sleep produces a sluggish worker.

Diet plays an important role in fatigue. Employees who do not eat breakfast are likely to become fatigued in the morning. A well-balanced diet gives the body the fuel it needs to generate energy. Bodies need a balance between food, rest, and work. A person who stays fatigued is more susceptible to disease.

Work Performance

Fatigue is usually accompanied by a decrease in the quality or quantity of production. For example, the supervisor may notice that areas of a hard-surface floor were missed during spray buffing, trash pickup was missed in several rooms, or employees did not complete tasks by the end of the shift. Employees suffering from fatigue will experience a drop in work performance due to lack of mental and physical energy.

Personal Energy

Work pace, employee attitude, tools and equipment used, and the employee's knowledge of body mechanics all affect the amount of energy used in performing tasks. Workdays that are evenly paced reduce physical fatigue. Therefore, any fatigue or loss of productivity occurs later in the workday.

For some employees, a steady work pace may become boring and create mental fatigue. An irregular work pace may be physically fatiguing, but enthusiasm may remain high as a result of the variety of work. People adapt differently to the pace of work. Therefore, an employee's attitude and preferred work style should be considered when job assignments are made.

Job Frustration

If a person is unable to perform tasks to standard, has to work in unpleasant conditions, has conflicts with supervisors or coworkers, or feels unappreciated, frustration with the job may develop. Another employee may see the same situation in an entirely different light, but perceptions of a situation affect the emotions of the worker. Further training, more personal attention, and changed working conditions may resolve the frustration.

Stress

Personal and job related pressures or worries might create stress. When people are stressed they are not as productive as they could be. A supervisor cannot always help with personal stress except by showing concern and being a good listener. However, job pressures may be relieved by reassigning an employee, redesigning a task, or discussing the employee's fears and concerns.

Work Load

Institutional maintenance employees are involved in hard work for long periods of time. Learning to set a reasonable work pace, as well as simplifying tasks, can result in more efficient workers with less fatigue over longer periods of time. Individuals who perform hard labor and heavy lifting may need to take shorter breaks more often. For example, they might take an extra five minutes at breaks, or take two shorter morning and afternoon breaks in addition to taking a longer lunch period.

The tensing of muscles over a period of time, as in typing, using a computer, filling out reports, or folding linens, can be as physically tiring as heavy physical activity. Following this type of activity, a person may feel tired but find relaxing harder to do than the person who does heavier work. Mental fatigue or eyestrain may cause tiredness also. Stresses placed on any of the body systems can produce fatigue.

Energy Breaks. A rest break should be taken whenever work productivity begins to decline or when an employee becomes fatigued. Occurrences of accidents and injuries rise when employees attempt to work through their fatigue. Breaks allow the body and mind to relax. Mid-morning and mid-afternoon breaks, in addition to a scheduled lunch period, are designed to combat fatigue and improve production. Generally, the company designates these breaks.

Not all employees or work situations fit this schedule, however. Some employees need more rest time while others need a different schedule. Getting away from the job, even for brief moments, allows employees to return to work with more enthusiasm. Exercise during breaks can pump more blood to the brain and create more energy. A brisk five to ten minute walk is a good exercise for energy breaks.

◆ *Essential Questions: Employee Fatigue* ◆

1. What situations can cause fatigue?
2. Why does fatigue result in a decrease in the quality or quantity of work produced?
3. In what ways can fatigue be lessened?

TASK ORGANIZATION

In institutional maintenance, ***organization*** is the arranging of tasks in an orderly manner. Organization is the key to efficiency. To simplify work, it is important to know what needs to be done, when it should be done, and what tools, equipment, and supplies are necessary. Most tasks can be made easier by applying the simple rules provided in Figure 14.1. When organizing housekeeping tasks, general guidelines to observe are as follows:

- Keep an adequate supply of cleaning products on hand to prevent delays caused by being out of needed products.
- Stock a cart or carrier with needed supplies and equipment before beginning a task to avoid unnecessary trips for needed items.
- Establish and follow a work schedule to ensure all tasks are performed with necessary frequency.
- Perform needed tasks as they arise to prevent complaints and to save time later. For example, replace burned-out light bulbs as they are noticed.
- Perform tasks in the most logical and efficient order.
- Plan ways to eliminate or reduce cleaning problems. For example, provide waste containers that are large enough to meet needs and use walk-off mats at entrances to prevent the tracking of dirt.

Simplify Tasks

An interested and motivated employee can find many ways to simplify tasks. Wasted effort can be avoided when an employee becomes motion conscious and understands the benefits of work simplification. General rules for reducing fatigue and increasing work production are as follows:

- Eliminate unnecessary steps.
- Select the best tools and supplies for the job.
- Maintain good posture.
- Learn to use both hands at once.
- Concentrate on the task at hand.
- Clean up as each job is completed.

Rules for Making Tasks Easier

- Have a clear idea of what will be done.
- Know how the task should be completed.
- Be aware of what is involved in each step.
- Know whether help will be available or if the task will be completed alone.
- Know what tools, equipment, and supplies will be needed.

Figure 14.1

- Work both ways. This means to make use of return trips. Never go anywhere empty handed. Always plan ahead and take something with you, especially when making trips up or down stairs. Lay items near the stairway to take up or down on the next trip. Never take only one item if several can be taken.
- Store frequently used items where they can be easily reached.

Conserve Energy

Energy is the capacity for doing work. A good employee needs both physical energy and mental energy to do any kind of work well. Muscles produce physical energy and a positive attitude creates mental energy. For example, poor posture causes body muscles to work harder to keep the body in balance. This extra work wastes energy and causes muscle tension and fatigue which, in turn, affects work performance. Rules for conserving energy when performing tasks are provided in Figure 14.2.

Management Responsibilities

It is important for all employees to receive training in procedures that simplify work. Employees must be shown how new procedures save time, increase profits, and reduce fatigue. Changes in procedures are sometimes difficult for established employees to accept. Training established employees and having them train others will encourage the use of new procedures. Incentives can be offered for suggestions that lead to improved procedures. Work standards must be enforced or employees may continue to follow previous procedures.

In order for the institutional maintenance department to be organized effectively, the following must be determined:

- Where time is spent
- How long activities take
- What limitations exist concerning people, time, and equipment
- What interruptions occur often

In summary, definite goals with measurable results must be set and priorities established. Goals should be categorized according to most important and least important. Some goals may be set aside until a later time. Time robbers should be recognized and eliminated. Any procedure or schedule should be flexible to allow for the unexpected.

◆ Essential Questions: ◆
Task Organization

1. Why is organization the key to efficiency?
2. How can energy be conserved when performing tasks?

Guidelines for Conserving Energy

- *Use simple and productive motions.*
  Eliminate any movement that is not productive. Use the fewest and the easiest body motions to do the job. Use both hands when possible. Using two hands often can accomplish tasks more quickly than using only one hand.

- *Make curved rather than straight motions.*
  Curved motions use less time and are less tiring than straight-line motions with sharp, sudden changes in direction. Floors are mopped using this rule of motion economy. Use figure-eight or S-curve motions rather than push-pull or circular motions when caring for floors, cleaning windows, or dusting. Circular motions tend to waste time and energy because of the number of overlapping strokes. Heavy equipment is easier to handle when this principle is followed.

- *Develop smooth, rhythmic motions.*
  Arrange work areas and equipment to help motions flow smoothly. Jerky, sudden movements involve more steps and are more tiring than rhythmic motions.

- *Place equipment within easy reach and store properly.*
  Avoid wasteful motions by keeping materials stored where they will be used. It is difficult to organize work properly when equipment is scattered about. Use a housekeeping cart to keep frequently used equipment and supplies close at hand. Always return supplies and equipment stored on the cart to designated places.

- *Use the laws of gravity and leverage.*
  Use gravity when moving materials. Allow objects to fall or move naturally in a downward direction to save the use of muscles and the expenditure of energy. Laundry chutes save time and energy when moving large bundles of linens. To reduce fatigue, use leverage or other mechanical means, such as dollies, housekeeping carts, or conveyor belts, to move bulky items.

- *Use appropriate muscles.*
  Use the strongest muscles possible (the large muscles) to perform the task or use more than one group of muscles to accomplish the task when appropriate. Hands are used to perform many tasks because of convenience and habit. Hand and back muscles are the weakest muscles. Use the power of arm and leg muscles to lift, push, and handle materials. Before lifting a heavy item, set the leg muscles, contract muscles slowly, and lift rhythmically with slow, even pressure. Small muscles tire more quickly than large muscles. Extended muscles have more power than flexed muscles. When lifting a box, flex the leg muscles prior to lifting and extend during the lift.

- *Remain relaxed.*
  Good posture and proper use of muscles help a person relax. Good lighting, good ventilation, and a quiet workplace contribute to a less stressful environment. Remaining relaxed while working can help a person be more efficient.

Figure 14.2

Chapter Highlights

- Time is a limited resource that must be managed through analyzing and planning in order to accomplish goals.
- Increased production, reduced waste, improved efficiency, and increased profits can result from task analysis.
- When a motion study is conducted, a worker's motions and the conditions of the job site are observed in order to identify the most effective way to complete a task.
- The goal of a time study is to time and record the motions of workers, identify time robbers, set goals and priorities, and provide recommendations for more efficient work procedures.
- Work simplification can be achieved through conserving resources, eliminating unnecessary motions, using new housekeeping products, maintaining equipment, placing tasks in a logical order, and rearranging work areas or storage space.
- Fatigue can be physical, mental, or a combination of the two. Fatigue can be caused by manual labor, poor working conditions, inefficient working procedures, physical exertion, working while in an uncomfortable position, working at an unpleasant task, working under stress, boredom, lack of sleep, problems with relationships, and improper diet.
- Fatigue can be lessened by redesigning or simplifying tasks, reassigning employees, learning to work at a regular pace, taking regular breaks, and exercising during breaks.
- Organization is an important aspect of work simplification. It involves knowing what needs to be done, when it should be done, and what tools, equipment, and supplies are needed.
- Energy can be conserved by making motions simple and productive, curved rather than straight, and rhythmic and smooth. Other ways to conserve energy include placing equipment within easy reach, using gravity when moving materials, using the strongest muscles to accomplish tasks, and remaining relaxed.

Chapter 15

Disinfection Techniques

Chapter Focus

The following Essential Knowledge and Skills are discussed in this chapter:

4A Evaluate potential safety hazards in the workplace.

4B Practice procedures that contribute to safe working conditions.

4C Apply safety and sanitation procedures when performing assigned tasks.

4D Analyze government regulations impacting safety and sanitation practices in institutional maintenance operations.

5A Demonstrate safe and responsible storage, use, and disposal of materials.

5B Describe environmental issues specific to an assigned workplace.

7A Develop guidelines for selecting equipment, supplies, and procedures for assigned tasks.

7B Apply appropriate procedures while operating equipment and using tools and products in the performance of assigned tasks.

7F Predict institutional maintenance cost variances based on material, surface, and furnishing considerations.

Chapter Vocabulary

aseptic
autoclave
bacteria
biological hazards
body fluids
fungi
germicides
microorganisms
organic matter
pest
residual odor
rodent
toxins
transient odor
universal precautions
viruses

CAUSES OF INFECTION

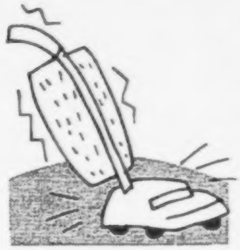
Many people use institutional facilities each day. Therefore, the spread of disease is likely. Individuals in institutions such as hospitals, hotels, schools, and office buildings contaminate rooms, furnishings, and linens with germs that spread communicable diseases. Communicable diseases are illnesses that can be transferred from one person to another through direct or indirect contact. People who are not ill can spread the germs causing communicable diseases. The hands and clothing are common carriers of germs if proper sanitation methods are not followed. Illness occurs when microorganisms that cause disease enter the body and multiply. ***Microorganisms*** are living plants or animals that can be seen only under a microscope. The microorganisms that cause disease are called pathogens. Bacteria, viruses, and fungi are common types of pathogens.

Bacteria are single-celled plants that live in soil, air, water, contaminated waste, and in the bodies of other living things. When bacteria use human tissue as food, ***toxins*** (waste products) the bacteria produce destroy the body. Bacteria can be transmitted through insect bites, air, food, water, soil, and through contact with contaminated surfaces. ***Viruses*** are the smallest pathogens. They are unable to multiply unless they are inside a living cell. When a virus enters a host cell, it overpowers the cell and commands it to manufacture hundreds of identical virus particles. ***Fungi*** are plants that live by feeding off the tissues of living organisms or dead organic material. Mildew, mold, and yeast are types of fungi.

Pathogens need food, moisture, warmth, and darkness in order to live and reproduce. Pathogens need moisture to decompose solid foods into a liquid form of food. Proteins in the liquid food can be absorbed through the cell walls of bacteria. Most bacteria thrive at temperatures close to that of the human body (98.6°F). High temperatures above 170°F kill most bacteria. Extremely low temperatures slow the activity and growth rate of bacteria. Autoclaves are used in hospitals to kill bacteria on equipment and other items of personal contact. An ***autoclave*** is a container that uses extremely hot steam under pressure to kill pathogens.

When bacteria are in dark places, they become very active and multiply quickly. When exposed to light, they become inactive and die rapidly. Bacteria most often attack the human body as a source for needs because the human body can supply food, moisture, warmth, and darkness. Pathogens enter the body through openings such as eyes, nose, mouth, and broken places in the skin. They can also leave the body through these same openings.

Coughing and sneezing release pathogens in droplets of mucous or saliva. Even normal speech and breathing disperse pathogens into the atmosphere. Pathogens can also be found on food, clothing, drinking glasses, toothbrushes, towels, and other objects touched by infected persons. Public drinking fountains, public restrooms, and bar soap are also sources of bacteria.



Physical removal of pathogens is necessary since they can travel through the air by way of lint or dust particles. Improper sweeping and mopping techniques can spread pathogens throughout an entire building. Some methods of removing pathogens include using air filters and performing daily vacuuming. Hospitals, computer rooms, and precision assembly areas are places where an H.E.P.A. filter vacuum may be used. The H.E.P.A. (High

Efficiency Particulate Air) filter vacuum is specially made to be used anywhere fine dust may be a critical problem. These filters are efficiently designed to hold the dust inside the vacuum so the exhaust air is clean. Some H.E.P.A. filters have as much as a 99.97% efficiency rating.

Pathogens can exist for a long time in a dormant state waiting for the opportunity when food, moisture, warmth, and darkness are all present. Some pathogens produce spores. Spores can resist extreme temperatures and strong chemicals until the environment is suitable for multiplying.

Bacteria and fungi have the ability to develop from their normal states into shell-covered organisms called endospores. These spores are the dormant or resting phase of the organism. Spores are highly resistant to any adverse physical or chemical agents such as extreme heat, drying, and many of the disinfectants used in cleaning.

In order to prevent the spread of disease, the institutional maintenance department must maintain a disease-free environment. Controlling infection and contamination is a major responsibility of the maintenance staff. By effectively eliminating the risk of infection and contamination, the housekeeping and maintenance staff prevents liability claims and deters loss of business.

◆ *Essential Questions: Causes of Infection* ◆

1. Why is it important to control pathogens?
2. How do bacteria, viruses, and fungi differ?
3. How are pathogens spread?

INFECTION CONTROL

In order to control infection and contamination, proper disinfection techniques must be used. The amount of disinfection required varies among institutions. For example, hospital rooms require more thorough disinfection than hotel rooms. Though the amount of disinfection varies, the techniques for disinfection are similar.

Thorough cleaning does not usually provide adequate infection and contamination control. Cleaning kills some pathogens, but disinfection (the process of destroying pathogens) is necessary to kill the majority of pathogens. Disinfection does not destroy all pathogens, but it does produce an environment that is aseptic. An ***aseptic*** environment is free from or keeps away pathogens. Disinfectants (solutions used on inanimate objects to kill disease causing bacteria and viruses) must be used to rid surfaces of pathogens. The type and strength of the disinfectant used affects the type and number of pathogens killed. For a disinfectant to be effective, it must be used on a clean surface. Bacteria can live under and within soil. Therefore, soil must be removed from surfaces before disinfecting.

The institutional maintenance staff may choose from a variety of disinfectants (sometimes referred to as ***germicides***). Some disinfectants kill only one type of germ while others have a broad range of kill. Choosing a disinfectant that is not appropriate for the area being cleaned results in ineffective disinfection and pathogen control. A comparison of different types of disinfectants is shown in Table 15.1. When choosing a disinfectant, the housekeeping employee should consider the following factors:

- Kind of bacteria to be killed
- Type of environment in which the bacteria reside
- Cleanliness of the area to be disinfected
- Time required for the disinfectant to destroy bacteria.

Types of Disinfectants

Type	Description	Advantages	Disadvantages
Natural Pine Oil	natural disinfectant	• effectively kills germs when used at a ratio of 80 percent pine oil to 20 percent water	• low kill rate at low dilution ratio • expensive to use since dilution ratio is high.
Iodine	natural disinfectant	• powerful natural disinfectant with a broad range of kill • kills tuberculosis germs	• can stain surfaces and corrode metal, as in mop buckets • not recommended for custodial use • should only be used under controlled conditions
Idophor	mixture of iodine and detergent	• is a cleaner/disinfectant • kills germs and removes dirt in a one-step process • works well with hard water • changes its color when ability to disinfect becomes weak • effective in food service areas due to low toxicity	• can create discoloration • less effective in cleaning oily soils • not recommended for general use
Hypochlorites	chemical disinfectant (Household bleach is a common type of hypochlorite.)	• powerful germ killer	• only work on surfaces that are already clean • use themselves up as they kill germs • can corrode some metal surfaces • can dull tile floor and damage grout if used over a long period of time • will oxidize or burn any material • dry hypochlorite can cause a flash fire if used with an oil or soap
Natural Phenols	disinfectant made from carbolic acid (natural phenols not widely used; have been replaced by synthetic phenols)	• none	• usually poisonous to humans • corrode metal surfaces • strong odor

Table 15.1 *(continued on page 251)*

Types of Disinfectants			
Type	**Description**	**Advantages**	**Disadvantages**
Synthetic Phenols	chemical disinfectant	• broad range of kill, including tuberculosis germs • can be used to make cleaner/disinfectants	• will not work with all detergents • are poisonous • will burn skin, irritate eyes, and give off fumes that can damage lungs
Quaternary Ammonium Compounds	chemical disinfectant	• nonpoisonous • have no odor • will not burn skin • good germ killing powers • can be used in food processing areas	• will not kill tuberculosis germs • killing power reduced as more soil is encountered • killing power is slowed by hard water

Adapted from: ***Custodial Technician Handbook I, Basic Cleaning Procedures in Custodial/Housekeeping Operations.*** **Irvine, California: Cleaning Management Institute, Inc., 1989.**

Table 15.1 - Cont'd.

Disinfectants can be mixed with detergents in order to clean and disinfect in one step. A detergent is a cleaning agent, other than soap, used to remove soil. The use of disinfectant/detergent solutions is usually not as effective as detergent and disinfectant used separately.

The proper detergent must be used with each disinfectant in order to obtain the most effective results. Some disinfectants become useless when mixed with certain detergents. It is safer and more effective to use premixed disinfectant/detergent solutions. Premixed solutions provide the correct amounts of both disinfectant and detergent. This allows both the disinfectant and the detergent to work effectively together rather than against one another.

Disinfectants and disinfectant/detergents are usually in concentrated form. Dilution with water is necessary before they can be used. Institutional maintenance employees should carefully follow manufacturers' instructions when diluting disinfectants. Failure to follow instructions may result in the following:

- Reducing the effectiveness of a disinfectant
- Causing personal injuries, such as skin irritations
- Producing harmful fumes
- Damaging surfaces

In order to maintain safe conditions for staff, patients, and guests, housekeeping personnel must take responsibility for the proper use of disinfectants. It is important for management to provide training on the proper use of each disinfectant that the housekeeping staff is required to use. Before using chemicals, supervisors and employees should read the material safety data sheet (MSDS) on each chemical carefully. The MSDS provides detailed information about hazardous chemicals. Additional information regarding material safety data sheets is located in Chapter Eight.

Safety procedures to observe when using disinfectants include the following:

- Do not use chemicals from unmarked bottles. When transferring chemicals to smaller bottles, always attach a label to the bottle or display a large sign listing the ingredients, hazards, and uses.

BEST COPY AVAILABLE

- Always read labels and follow instructions carefully.
- Do not substitute chemicals.
- Never mix chemicals. A chemical's effectiveness may be diminished, or toxic fumes or flammable solution may be created.
- Never smell chemicals as a means of identification. A deep breath of the fumes from some chemicals can result in death.
- Wear safety glasses, rubber gloves, and protective clothing if the chemical solution is strongly acidic or alkaline.
- Secure the bottle cap or lid before handling a container or before replacing a container on a shelf.
- Do not store harsh chemicals on overhead shelves.

◆ *Essential Questions: Infection Control* ◆

1. What techniques can be used to control infection?
2. Why do disinfectants differ?
3. What are examples of safety procedures to follow when using disinfectants?

ODORS

Residual Odors

Odors in restrooms, trash receptacles, and other areas are the result of poor sanitation. Odors in these areas are the result of bacteria decomposing organic matter. ***Organic matter*** is matter that is derived from living organisms. An odor caused by decomposing organic matter is a ***residual odor***.

Air fresheners and deodorizers mask residual odors rather than eliminate them. The use of air fresheners and deodorizers are often a sign of poor housekeeping since the odor is masked rather than eliminated. Fresh air, removal of the source of the odor, and thorough cleaning with a disinfectant/detergent solution help eliminate residual odors.

Before an area can be disinfected, it must be cleaned to remove the organic matter that feeds bacteria. Once the matter is removed, the area can be disinfected and deodorized to prevent bacteria regrowth and the accompanying odor.

Transient Odors

Some odors cannot be eliminated by removing the source. For example, cooking, smoking, and some illnesses produce odors that are not caused by decomposing bacteria. This type of odor is a ***transient odor***.

Air fresheners and deodorizers mask transient odors, but they do not eliminate them. Many times, the strong smell of an air freshener makes a transient odor smell worse. An effective way to eliminate transient odors is to properly ventilate the area where the odor occurs.

Technology and Odor Control

New odor control techniques are currently being developed. For example, odor neutralizers claim to eliminate odor-causing molecules. Odors are eliminated when the odor neutralizer bonds with odor molecules. This bond produces an enlarged molecule that the nose does not recognize. Therefore, the nose does not smell the odor.

Neutralizers can be combined with disinfectants or cleaning solutions. This combination eliminates odor molecules that settle on hard surfaces. For example, when a hard surface is cleaned with a disinfectant or cleaner containing a neutralizer, the neutralizer bonds with odor molecules on the surface. In addition, the neutralizer forms a coating on the surface. This coating serves as a barrier and neutralizes any odor molecules that rest on the surface.

◆ *Essential Questions: Odors* ◆

1. Why are air fresheners and deodorizers ineffective in actually removing odors?
2. How do odor neutralizers eliminate odors?

PESTS

Prevention of insect and rodent infestation is an important responsibility of a housekeeping department. Despite good housekeeping practices, pests still enter institutions. A ***pest*** is something that causes trouble, destruction, annoyance, or discomfort. Pests include rodents, insects, birds, and stray animals.

Rodents and insects can be transported into an institution with food and linen deliveries. Guests and customers may unknowingly transport pests in luggage or personal items. Pests may also enter institutions through open doors or windows. Many pests carry disease and the threat of infection. Therefore, it is important for the housekeeping and maintenance staff to identify and control pests.

Some institutions have in-house pest control programs while other institutions contract outside pest control services. Executive housekeepers and managers should ensure that the staff responsible for pest control is trained in the safe and effective use of pest control chemicals.

When employing the services of an outside pest control business, the company's references should be verified. Additionally, records should be kept of sightings of pests occurring between pest control visits. Contracts with pest control services should outline the following information:

- Types of pests to be controlled
- Materials and methods of treatment
- Schedules of what will be done, where or in what areas it will be done
- Schedules of when each treatment will occur

Cleanliness of an institution is also important in controlling pests. Housekeeping, kitchen, and warehouse staffs must work together to maintain conditions that keep the pest population under control. In foodservice areas, insecticides should be kept away from food. Insecticides should be clearly labeled and stored in a locked cabinet. The housekeeping staff must be responsible for noticing opportunities for insect and rodent infestations and for removing potential nesting and breeding areas.

Rodents

Rodents are among the most destructive pests in an institution. A ***rodent*** is a gnawing mammal, such as a mouse, rat, squirrel, or beaver, that is characterized by constantly growing incisors adapted for gnawing or nibbling. Rats and mice have front, chisel-like teeth and back grinding teeth. Their chisel-like teeth grow constantly in a semi-circular form. Rats and mice must

gnaw to keep these teeth worn down. Rats can gnaw through wooden boxes, wooden doors, and lead pipes. Rats and mice can destroy food and property, cause fires, and spread such diseases as plague, dysentery, and rat-bite fever.

Rodents like food, warmth, and moisture. They live in sewers, trash, and walls. Rodents are nocturnal animals, and they roam at night in search of food. Rats and mice will eat anything that humans eat. Furthermore, they thrive on spoiled or decayed food and garbage.

Rodents can breed quickly and produce from four to six litters each year. Each litter consists of six to ten rodents that can live two to three years. It is important to control the population of rodents since a larger rodent population leads to higher incidents of destruction and disease.

Rodents transmit disease through biting, carrying infected fleas or lice that can transmit typhus and bubonic plague, and contaminating food with their wastes. The potential for disease and contamination can be eliminated through observing good sanitation practices and implementing an ongoing program to control the rodent population.

To control rodents effectively, the institutional maintenance staff must know how to detect their presence. Rodents are seldom seen, but their presence can be detected by noticing running, gnawing, or scratching sounds in walls and floors. Housekeeping employees should look for droppings along the bases of walls, in places seldom cleaned, and in food areas. Gnawed areas and hidden nests of lint, rags, or batting are also signs of rodent infestation.

Control and prevention measures should be taken to eliminate rodents. The following measures are important in preventing and eliminating rat and mouse infestation:

- Keep areas around the institution clean.
- Inspect all food and linen supplies upon arrival.
- Do not allow food wastes, rubbish, and papers to accumulate.
- Keep garbage cans tightly closed and use rodent-proof storage containers.
- Keep outside trash storage areas clean.
- Seal all cracks and crevices.
- Seal around pipes and conduits.
- Make sure floors and windows fit tightly.
- Eliminate food and water supply.
- Eliminate nesting places by removing accumulated trash, papers, or empty boxes.
- Use an extermination service.

Insects

Other destructive pests often found in institutions are insects. Not all insects are harmful. However, there are some harmful insects that are capable of destructing property, destroying food, and transmitting diseases (as shown in Figure 15.1). Insects that cause the most disease and destruction include flies, mosquitoes, cockroaches, ants, bedbugs, lice, and termites. Descriptions of these insects and methods of controlling them are included in Table 15.2.

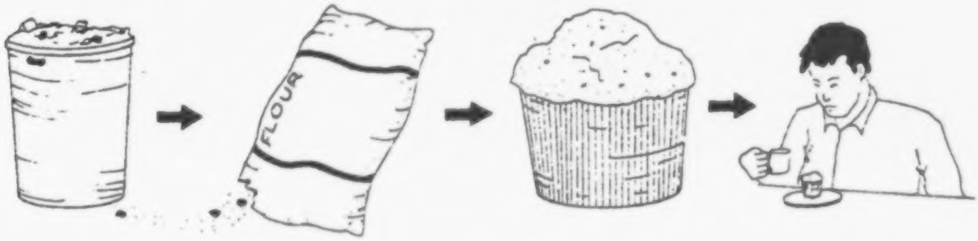


Figure 15.1

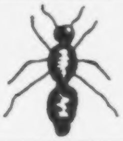
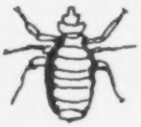
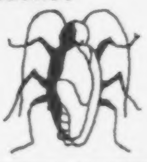
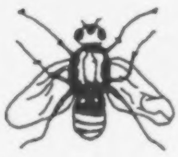
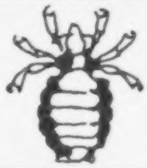
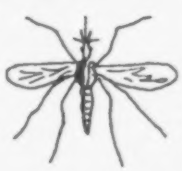
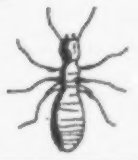
Insect	Description	Control Method
Ants 	Ants are considered a nuisance. They destroy food and crawl over filth.	√ Eliminate food supply. √ Store foods properly in closed containers. √ Maintain a clean environment.
Bedbugs 	Bedbugs are wingless, reddish brown bugs that feed on blood. Bedbugs are found in bedding, cracks, crevices of walls, and baseboards. Their presence is detected by their odor, blood stains, and excretory spots.	√ Maintain a clean environment.
Cockroaches 	Roaches like dark, damp, warm places. They live five years and carry disease on their bodies and feet. They are often brought into institutions on delivery packages.	√ Maintain a clean environment. √ Store foods properly in closed containers. √ Eliminate dripping drains and faucets. √ Use insecticides.
Flies 	Flies lay their eggs in filth, rotting food, and human and animal waste. Flies spread disease.	√ Control at breeding place. √ Clean breeding areas and remove food. √ Cover garbage tightly and protect food supplies. √ Use screens where possible. √ Kill by spray or traps.
Lice 	Lice are wingless parasites that live on animals and humans. Eggs hatch in two to three weeks. Lice carry typhus and relapsing fever.	√ Treat the host of the lice. √ Do not allow animals in food areas.
Mosquitoes 	Mosquitoes breed in stagnant water and drains. They transmit disease by biting.	√ Screen openings. √ Remove stagnant pools of water or treat with insecticide. √ Repair leaks. √ Eliminate wet or damp areas or treat with insecticide if the area cannot be dried.
Termites 	Termites live in colonies and feed on wood. They have an appearance similar to ants. Signs of infestation include clay or dirt packed on basement floors.	√ Contact a professional exterminator; only professional control measures are effective against termites.

Table 15.2

BEST COPY AVAILABLE

Insects grow and develop through different stages: egg, larva, pupa, adult. Therefore, repeated efforts must be made to control their reproduction and growth. Some pesticides are more effective at certain stages of the insect's development than are others.

Difficulties in controlling insects within an institution are caused by lack of orderliness in the storage of materials that provide food for insects; cracks, crevices, and spaces that allow insects entry from outside; entry of insects with food and other deliveries; and improper use of insecticides. Management should ensure that employees are properly trained and that directions are carefully followed when using insecticides.

Insect control is a continuous responsibility of the institutional maintenance department. Employees should watch for situations that provide places where insects can breed or gather. Preventive measures such as the following should be taken to control insect infestation:

- Keep all food storage and preparation areas clean.
- Rotate foods so that those purchased first are used first.
- Keep food in tightly closed containers.
- Inspect dark areas frequently for insects.
- Dispose of any product that has been contaminated.

◆ *Essential Questions:* ◆ *Pests*

1. Why must the infestation of pests be controlled?
2. How can pests be detected?
3. What are examples of preventative measures to follow to control or eliminate pest infestation?

WASTE DISPOSAL

Institutions generate many kinds of waste in large amounts each day. Waste is disposed of on a regular basis in order to create an attractive appearance, promote safety, and maintain a sanitary environment. Housekeeping and maintenance employees are responsible for safely removing and disposing of waste.

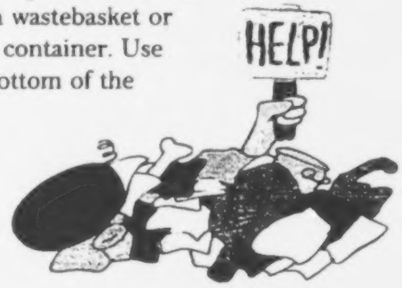
Waste is capable of causing contamination, fires, and odors. Therefore, all employees should assume that all waste is potentially dangerous. In addition, waste attracts pests. To prevent the spread of infection, the housekeeper must dispose of waste properly and disinfect waste containers.

Proper Waste Disposal

Proper waste disposal varies among different types of institutions. However, some basic guidelines apply. In some institutions, institutional maintenance employees collect trash and place it into trash containers. Filled trash containers are taken to a designated area where they are gathered and taken to a waste disposal site. Some waste, such as garbage from a kitchen, can be placed in a disposal. Waste also can be burned in an incinerator or placed in containers for removal by a commercial sanitation service.

General guidelines to observe when disposing of waste include the following:

- Wear fabric or heavy rubber gloves.
- Do not place the hands into a wastebasket or trash container. Use the bottom of the

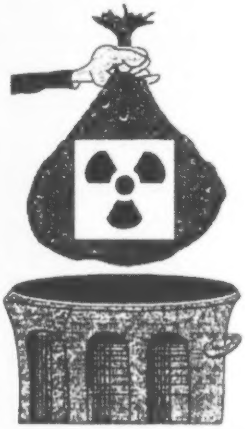


wastebasket to push waste down into the trash container.

- Disinfect wastebaskets after emptying trash.
- Empty ashtrays into metal containers used specifically for ashes.
- Dispose of broken glass in special containers used for glass only.
- Do not collect waste in areas where food is being prepared or served. Germs from the waste can come into contact with food.

Chemical and Hazardous Waste Disposal

The Occupational Safety and Health Act (OSHA) requires that information regarding safe disposal procedures for chemicals be included in the material safety data sheets. Additionally, the Environmental Protection Agency (EPA) provides guidelines for the proper disposal of chemicals such as pesticides. General guidelines for disposal of hazardous substances include the following:



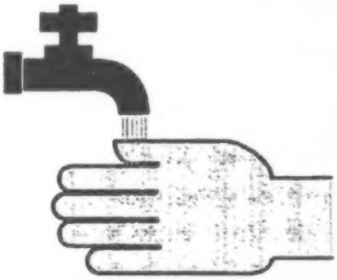
- Do not pour chemicals down drains.
- Do not allow chemicals to evaporate as a means of disposal.
- Place chemicals in containers compatible with the material.
- Ensure that containers used for disposal have tight fitting lids.
- Properly label all waste products.

Recycling and Waste Management Programs

Institutions may have a recycling program for managing chemicals, wastes, and greases from foodservice. Radiation detectors may be installed in the waste containment area so that radiation material is not placed in the regular trash system. Some institutions have on-site sterilizers to sterilize infectious waste before disposal.

In institutional maintenance services, the executive housekeeper is responsible for maintaining records, conducting training and supervising employees to ensure compliance with OSHA regulations. This crucial job-related activity can require large amounts of time and extra staffing. Therefore, many businesses and health care establishments hire environmental contract services for waste management because it is more cost efficient than hiring, training, and supervising an in-house housekeeping and maintenance staff. Environmental contract services offer risk-free management of waste products by accepting any liabilities that may result from spills or accidents.

Housekeeping personnel are often required to clean up body fluid spills. ***Body fluids*** include blood, vomit, and human waste. Body fluids can contain germs that cause infectious diseases. In order to prevent the spread of infectious disease, the housekeeper must be properly trained in the cleanup of body fluid spills. An effective method for removing body fluid spills is as follows:



- Always assume that a body fluid spill contains infectious germs.
- Place safety signs around the area to be cleaned. This will prevent individuals from walking through the spill and spreading germs to other areas.
- Wear disposable gloves. If necessary, a mask also can be worn.
- Sprinkle an absorbent material over the spill. Absorbent materials made for soaking

up spills are available commercially.

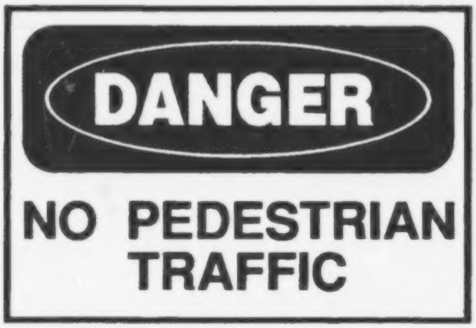
- Scoop up the spill, once it is contained, using a spatula or dust pan.
- Place the spill in a thick, plastic trash bag.
- Place any absorbent materials and disposable gloves in the bag.
- Seal the bag tightly and dispose of properly.
- Disinfect immediately any equipment that came in contact with the spill.
- Disinfect the area of the spill with a disinfectant/detergent.
- Wash hands immediately. Follow the proper hand washing procedure. If a hand washing area is not available, rinse hands with an antiseptic alcohol rinse and wash hands as soon as possible.

Biological Hazards

Blood borne infectious diseases, such as HIV/AIDS and hepatitis B, are considered ***biological hazards***. An OSHA regulation against biological hazards requires employers to evaluate routine tasks and procedures that involve exposure to blood or other potentially infectious materials, identify workers performing such tasks, and use a number of methods to reduce the risks. One method used to reduce risk is to observe universal precautions developed by the Center for Disease Control (CDC).

Universal precautions assume that blood and certain body fluids of every person be considered potentially infectious for HIV, hepatitis B virus, and other bloodborne pathogens (pathogens are agents that carry the disease, such as bacterium or viruses). Body fluids include blood, vomit, and human waste.

Housekeeping and maintenance personnel often find themselves required to clean up body fluid spills. Each time a clean up is required it is treated as though it were potentially dangerous, and gloves are worn at all times during cleaning. However, gloves are not a substitute for thorough and frequent hand washing. If hand washing facilities are not available, individuals should rinse the hands with alcohol.



◆ *Essential Questions: Waste Disposal* ◆

1. Why is it important to properly dispose of waste regularly?
2. What methods are used to dispose of waste?
3. What procedure should be followed when removing body fluid spills?

Chapter Highlights

- Pathogens such as bacteria, viruses, and fungi require moisture, warmth, and darkness in order to live and reproduce.
- Pathogens are released by coughing, sneezing, speaking, and breathing. Pathogens can be found on food, clothing, drinking glasses, toothbrushes, towels, public drinking fountains, public restrooms, and bar soap.
- Types of bacteria affected, dilution ratio, rate of kill, cost, and ability to clean and disinfect vary among the variety of disinfectants available.
- Improper use of disinfectants can result in reduced bacteria control, personal injuries, harmful fumes, and damaged surfaces.
- Areas must be thoroughly cleaned and disinfected and the sources of odors removed in order to eliminate residual odors.
- Transient odors may be masked by air fresheners and deodorizers or eliminated by ventilating the area where the odor occurs.
- In order to prevent the destruction of property, destroying of food, and spread of disease, pests such as rodents and insects must be controlled. This can be accomplished by observing good sanitation practices, implementing effective pest control programs, sealing areas where pests can enter, and removing food supplies.
- Waste can be properly disposed of in trash containers, disposals, or incinerators to create an attractive appearance, control the spread of disease, eliminate the possibility of fire, and control odors.
- Institutional maintenance employees should always assume that body fluid spills contain infectious germs and follow proper procedures for their removal.

Chapter 16

Entering and Exiting Cleaning Areas

Chapter Focus

The following Essential Knowledge and Skills are discussed in this chapter:

1C Adhere to company policies and procedures.

4B Practice procedures that contribute to safe working conditions.

7A Develop guidelines for selecting equipment, supplies, and procedures for assigned tasks.

7C Describe the impact of technology on equipment, supplies, and procedures utilized in the industry.

7D Describe appropriate procedures for completing a variety of tasks involved in institutional maintenance.

8B Determine appropriate responses in accommodating guest and patient requests.

8D Describe appropriate respect and care for personal property of guests and patients.

8E Apply recommended procedures for entering and exiting guest and patient rooms.

Chapter Vocabulary

card entry system
Do Not Disturb signs
inventory report
lost and found log
lock cylinder change program
preliminary room check
room report
supply and material requisition

It is important for housekeeping personnel to enter and exit cleaning areas according to established procedures. Proper entering and exiting procedures ensure employee safety, guest privacy, and patient safety and privacy. By following established entering procedures, housekeepers and institutional maintenance employees protect themselves from harm by guests or unwelcome intruders. Additionally, these procedures protect the privacy of guests, patients, and tenants.

By observing established exiting procedures, the housekeeper may verify the following:

- The room has been cleaned properly
- Furnishings are in the proper places
- All cleaning equipment and supplies are removed from the room
- Lights and faucets are turned off
- Air conditioning/heating units are set as instructed by management
- The room door and exterior doors are locked

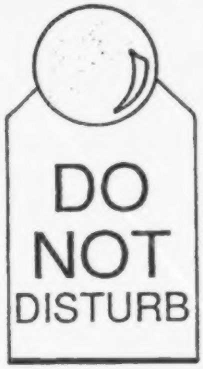
Basic procedures for entering and exiting cleaning areas are similar. However, employees should follow the standard operating procedures determined by the institution.

HOSPITALITY INSTITUTIONS

Housekeepers often begin working while guests are asleep so it is important to be as quiet as possible when in corridors and passageways. Housekeepers should not enter rooms with Do Not Disturb signs hanging on the doorknobs until after the checkout deadline. However, rooms may be checked several times until checkout to see if the signs have been removed. ***Do Not Disturb signs*** are used by hotel guests to inform hotel employees and other individuals that the occupants do not want to be bothered. Often, guests are sleeping.

Entering Rooms Designated with Do Not Disturb Signs

If a Do Not Disturb sign has not been removed after checkout time, the housekeeper should alert the housekeeping supervisor. The housekeeping supervisor will call the room and ask the guest when housekeeping services will be convenient. If the guest does not answer the call, the housekeeping supervisor should go to the room, knock on the door, and say, "Housekeeping." If there is still no answer, the housekeeping supervisor should unlock the door and slowly enter the room. If a guest is not in the room, the housekeeper will be instructed to clean the room. If a guest is in the room, the housekeeping supervisor should apologize for the intrusion and ask when housekeeping services will be convenient. If the guest is in the room and is ill, the housekeeping supervisor should notify management or security.



Housekeepers should announce their presence before entering any guestroom – even when it is assumed that the room is vacant. The following is a professional procedure that housekeepers may follow when entering to clean a guestroom:

1. Knock on the door with the knuckles. The knuckles on the hand should be used to knock on the door. Keys or metal objects should not be used to knock on doors since these objects can damage doors in a short time.
2. Announce yourself by saying, "Housekeeping."
3. If a guest answers, say, "Please excuse the disruption. I am conducting a room status check. Thank you. Enjoy your stay with us." Then go to the next room.
4. If there is no answer, knock on the door again to make certain that anyone in the room will be made aware of your presence.
5. If there is still no answer, insert the key in the door. Announce again, "Housekeeping."
6. Open the door slowly and, as the room is entered, say,"May I come in, please?"

Entering an Occupied Room

In the event a guest is discovered sleeping or showering, the housekeeper should leave the room quietly and quickly. If the guest is awake, the housekeeper should apologize for the intrusion, explain that a room status check is being conducted, and ask if the guest would like the room cleaned later. When a guest is discovered in a room that should be vacant, the housekeeper should say, "Excuse me, I thought the room was vacant" and quickly leave the room. The housekeeper should not question the guest. This is inconsiderate if the room status is incorrect and the guest should occupy the room. In addition, questioning the guest could be dangerous if the guest does not belong in the room. The housekeeper should notify the supervisor to determine if the guest should or should not occupy the room.

Cleaning a Vacant Room

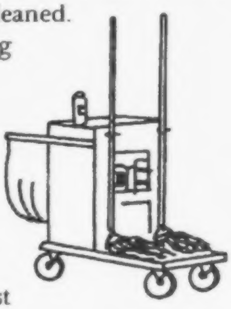
After entering a vacant room to clean, the housekeeper should prop open the door to the room and block the doorway with the housekeeping cart. By blocking the doorway with the cart, people are discouraged from entering the room while it is being cleaned. The open side of the housekeeping cart should face the room, and the wheels of the cart should be locked. Positioning the housekeeping cart so that it faces the room serves two purposes:

- Supplies are within easy reach
- The possibility of guests taking supplies is lessened

Locking the wheels of the cart prevents the cart from accidentally rolling away or being moved easily by a possible intruder. If an intruder struggles with the cart, the noise would alert the housekeeper.

Some housekeeping policies state the correct procedure to follow when a guest returns to a room that is being cleaned. In this case, housekeepers should follow the standard operating procedures. Generally, if a guest arrives while the housekeeper is cleaning a room, the housekeeper may choose one of the following options:

- Work around the guest.
- Ask the housekeeping supervisor or another housekeeper for help in order to speed up the cleaning process.
- Ask the guest to wait outside or somewhere else until the room is cleaned.
- Ask which housekeeping services the guest desires, provide those services, and leave quickly.



Although the housekeeper should not be overly friendly with a guest who is present during cleaning, it is appropriate to take the time to thank the guest for staying at the facility and to wish them a pleasant stay. Asking the guest if they have any requests is a good way to help make them comfortable while the room is being cleaned. Housekeepers need to remember that making guests comfortable is the major goal in the hospitality industry. Repeat business earns larger profits, thereby creating both job stability and security.

After Cleaning a Guestroom

After cleaning a guestroom, the housekeeper should stand inside the doorway and look around the room. The room should be viewed in the same manner as a guest would view it upon entering. The housekeeper should make sure nothing has been overlooked and that all cleaning supplies have been gathered. In addition, furniture, telephone books, and printed materials should be in their proper locations.

Most hospitality facilities have standard operating procedures for how a ready to rent room should be left after cleaning. In most cases, before leaving the room, the housekeeper should close the drapes, turn off all lights and appliances, and set the air conditioning/heating unit as instructed. The housekeeper should then leave the room and lock the door securely. The status of the room should be recorded and the housekeeping supervisor notified.

Use of Computers by Housekeeping

As computers have become more affordable, even the smallest hospitality facilities are using them to handle information. A central processing unit (CPU) of the computer network can be accessed through the telephone system. The front desk and the executive housekeeper can access the information provided through the computer so that the status of all guestrooms is kept current.

Following is an example of how computers may be used by the housekeeping department: After cleaning a guestroom, the housekeeper uses the guestroom telephone and accesses the CPU by entering a sequence of numbers. Once connected, the computer recognizes the room number to which it is connected. At this point, the housekeeper is provided with a specific list of dial-up status codes which are used to transmit information. Following are some sample status codes and the information provided:

- 111: Room is occupied (clean)
- 112: Room is occupied (dirty)
- 113: Room is vacant and ready to rent
- 114: Room is out of service - this status will alert the Maintenance Department to send a maintenance person immediately.

◆ Essential Questions: Hospitality Institutions ◆

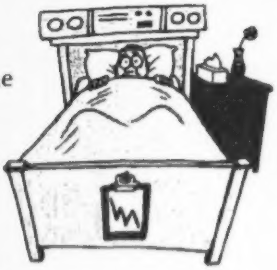
1. Why is it important to follow standard procedures when entering and exiting cleaning areas?
2. What procedures should be followed when guests are discovered sleeping or showering?
3. Why is it important that housekeepers avoid questioning individuals occupying rooms that should be vacant?
4. What are the advantages of blocking the doorway of a guestroom with the housekeeping cart?
5. What should a housekeeper do when a guest arrives while a room is being cleaned?

HEALTH CARE INSTITUTIONS

The procedure for entering and exiting patient rooms in health care institutions is similar to the procedure used in hospitality facilities. However, patient rooms differ from guestrooms in that patient rooms are often occupied, and the housekeeper must clean the rooms while patients are present.

Entering Occupied Rooms

Before entering a patient's room, the housekeeper should place the housekeeping cart near the door of the room next to the wall of the corridor. The housekeeper should knock on the patient's door, greet the patient pleasantly, and explain the reason for being in the patient's room. For example, the housekeeper might say, "Good morning, Mrs. Gonzales. I am Mr. Lai, and I am here to clean your room." The housekeeper should then enter the room and begin cleaning.



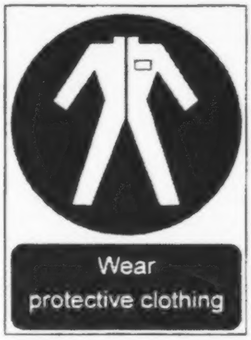
Housekeepers can be friendly to patients, but should not hold long conversations. All necessary supplies should be brought into the room upon entering since trips into and out of the room may disturb the patient and waste time. When entering occupied rooms, efficiency and promptness are key. Rooms should not be entered or cleaned if a patient is being examined or receiving treatment.

When Patients Refuse Housekeeping Services

Sometimes, a patient may refuse to allow the housekeeper into the room. In this situation, the housekeeper should notify the housekeeping supervisor rather than argue with the patient. The housekeeping supervisor can find out when the patient will be out of the room for therapy, tests, or x-rays, and the room can be cleaned then. If this method is not effective, the housekeeping supervisor can explain to the patient the importance of maintaining a clean and safe environment. The housekeeping supervisor can also try to find out why the patient does not want the room cleaned. Sometimes patients do not like the smell of cleaners or the noise of equipment. The patient should be assured that the problem will be corrected. Most patients respond to this approach when it is presented sincerely.

Protective Clothing

Many times, housekeeping and environmental services personnel are required to wear protective clothing when cleaning isolation rooms or surgical areas. Before entering an isolation room or surgical area, staff members are often required to put on protective gowns, caps, booties, and masks. This clothing is removed immediately upon exiting the isolation room or surgical area. Protective clothing is required to protect the hospital staff from getting germs and to limit the spread of germs.



Once a patient room or surgical area is cleaned, the housekeeper should check the appearance of the area. This last check ensures that no cleaning tasks were overlooked and that no equipment or supplies are left behind in the room.

◆ Essential Questions: Health Care Institutions ◆

1. What procedure might be followed when entering a patient room?
2. What should be done when a patient refuses to allow the housekeeper to clean the room?
3. How do procedures for entering and exiting guestrooms and patient rooms differ?

PUBLIC AREAS

Housekeepers and maintenance personnel are required to clean public areas such as public restrooms, lobbies, corridors, stairways, and elevators. The procedure for entering and exiting most public areas is similar. In most cases, the housekeeper should enter the area with as little disturbance as possible, complete the cleaning procedure, and exit the area quietly. It is important for the employee to be considerate when cleaning in public areas since guests, patients, customers, and visitors may be present. A housekeeper who is loud and noticeable is likely to give the institution a bad reputation.

Entering a Public Restroom

Before cleaning a public restroom, the housekeeper should see if the area is available for cleaning. This is done by knocking on the restroom door and saying loudly, "Housekeeping." The housekeeper then waits for an answer, especially if cleaning a restroom used by members of the opposite sex. If the restroom is occupied, the housekeeper should wait until all people have left before cleaning. Once the restroom is vacant, open the door and block it with a bar or chair. Post signs indicating that the area is being cleaned and unavailable for public use. Also post signs warning of slippery floors.

After cleaning, the housekeeper checks the appearance of the restroom to make sure no cleaning tasks were overlooked. This final check also ensures that all equipment and supplies are out of the room. Once the floor is dry, the housekeeper may remove the caution signs and exit the area.

◆ Essential Questions: Public Areas ◆

1. Why must institutional maintenance employees be considerate and avoid causing disturbances when cleaning public areas?
2. What is a proper procedure to follow when entering a public restroom for cleaning?

REPORTS AND RECORDS

Preliminary Room Check

The purpose of the ***preliminary room check*** is to determine if the rooms assigned to be cleaned or the rooms reported as ready-to-rent are vacant. Room cleaning assignments are made by the executive housekeeper using the front desk report of the previous night. Housekeeping supervisors may check on the status of the rooms prior to the floor housekeepers reporting for duty. In some facilities, housekeepers quickly check all rooms reported vacant or ready-to-rent before they begin cleaning. In other facilities, all rooms are checked each morning and their status is reported to the front desk.

The front desk should be notified immediately if a room thought to be vacant is occupied. This may be a room for which payment has not been received. In other cases, the front desk may have assigned one room but given the guest a key to another room. Correcting this mistake early can prevent the front desk from booking another guest into the room already occupied.

While it would be easy to begin at one end of a hallway and work to the other end, the housekeeper must consider the wishes of guests in the facility. Therefore, housekeepers need to identify rooms that are occupied and do not wish to be disturbed. Identifying these rooms can be done by checking to see if Do Not Disturb signs are on any of the rooms to be cleaned or if dead bolts or night latches are secured. When a dead bolt or night latch is secured, there may be a pin protruding through the door handle or an indicator on the outside of the door.

Lost and Found Items

Items left in guest and patient rooms should be recorded on the housekeeper's daily report. Lost and found items should be taken to the housekeeping office at a regularly scheduled time each day where they are recorded on the Lost and Found Log. A ***Lost and Found Log*** is a written record that includes the date, the location where the items are found, and descriptions of found items. A number is usually assigned to each item so it can be tracked. Items found in public areas are carefully recorded and taken to lost and found also.

Generally, a found item is not returned to an individual until the item is logged into lost and found and proper identification is secured. The housekeeper should follow standard operating procedures for reporting lost and found items. In some hospitality facilities, lost and found items are taken to the front desk.

End of Shift Reports

Room Report. Usually, housekeepers are required to complete reports at the end of their shifts. A ***room report*** lists occupied and vacant rooms in the assigned area, indicates the status of the rooms, indicates (with a symbol) the condition in which rooms were found, and notes damages and items needed or missing from rooms. A room report is submitted at the end of each day.

Inventory Report. An ***inventory report*** is used to record the count of various items of value kept on hand. Maintenance department inventories are used to track items such as chemicals, guest supplies, and equipment. Examples of items that might be found on a cleaning and guest supply inventory report follow:

- Room service menus
- Stationery
- Envelopes
- Postcards
- Guest services directory
- Hotel maps
- Facial tissue
- Toilet tissue
- Bath soap
- Light bulbs
- Phone books
- Bibles
- Clothes hangers

When preparing an inventory report, the housekeeper must read the inventory sheet, count the items to be inventoried, and check the inventory list for comparison. If quantity is low and consumption is high, items must be reordered. If high loss is obvious, the supervisor should be notified.

Supply and Material Requisition. A ***supply and material requisition*** is used to request, or order, additional supplies or materials. Upon completion, the supply and material requisition is submitted to a supervisor. Housekeepers or maintenance personnel who are charged with completing a supply and material requisition may do the following:

- Check the inventory of supplies.
- Check supply catalogs for information.
- State the name or item number of the product or item requested.
- Give a clear description of the item.

- State how much of a product or how many items are required.
- State when the product or item is needed.
- Indicate the location to which the product or item is to be delivered.

◆ **Essential Questions: Reports and Records** ◆

1. How are lost and found items controlled?
2. How do room reports, inventory reports, and supply and material requisitions differ?

KEYS POLICIES

Issuing Keys

The control of keys is important whether in a hotel, hospital, nursing home, university dormitory, or office building. Institutional maintenance departments are responsible for many keys, including emergency keys and master keys. In some institutions, keys are kept in locked storage cabinets or in the Security Department where they are checked out to housekeeping personnel. In a hospitality or health care facility, keys may be kept in the linen room or the executive housekeeping office. Standard operating procedures may require floor supervisors to sign for the keys each day and distribute them to housekeepers.

Returning Keys

Keys must be accounted for at all times. Whenever employees leave the property, even for meal breaks, keys are signed in on a Master Key Control Chart. Before restocking cleaning carts at the end of a shift, housekeepers return room keys to floor supervisors or executive housekeepers.

Supervisors, security personnel, and department managers have master keys that will open all guestrooms, or all rooms on a floor, or rooms in an assigned section. The loss of a master key may result in termination, especially if negligence is determined.

Room Keys Left Behind by Guests

Room keys left by departing guests may be placed in a locked box on the housekeeping cart. It is the duty of the floor supervisor or executive housekeeper to retrieve these keys and return them to the front desk. Following proper procedures regarding room keys is important since professional hotel thieves watch for room keys that are left unattended.

Guestroom Card Entry Systems

In hospitality facilities, the replacement cost for guestroom keys that have been lost, misplaced, stolen, or taken as souvenirs is a major cost problem. Additionally, lost, misplaced, or stolen keys pose a threat to guest security.

Hotels using guestroom keys generally have the maintenance departments establish a routine ***lock cylinder change program***. This program involves taking cylinders from locks on one floor and exchanging them with cylinders from locks on other floors. After the change of cylinders, new guestroom keys are manufactured and stamped with new room numbers. A program such as this is time-consuming and costly in terms of both employee production hours and materials (i.e., making of new keys).

Large numbers of hospitality facilities are changing their old guestroom key programs to the ***card entry system***. This system has simplified and improved guestroom security. The card entry system works in the following manner:

- A guest checks into a hospitality facility and is presented with a plastic card.
- The card is equipped with an electrical or electronic "signature" set by a computerized system.
- The card operates the assigned room door with a combination that has been set specifically for the new occupant.
- The guestroom number is not printed anywhere on the card, thereby providing increased guest security.
- When the guest checks out, the memory of the card signature is wiped out of both the door combination and the system so that the card can be reused upon the arrival of the new guest.

With the card entry system, lost or misplaced guestroom cards can be replaced in a matter of minutes with a new signature. The new signature and card ensures that the previous card will no longer operate the guestroom door. Additionally, housekeeping and other master card systems are easily set or reset.

◆ Essential Questions: ◆ Keys Policies

1. Why is the control of keys important?
2. What are some methods of key control?
3. In what ways does the card entry system increase guest security?

Chapter Highlights

- Entering and exiting procedures are established and followed to ensure employee safety and to protect the privacy and safety of individuals such as guests and patients.

- Housekeepers need to be aware of the proper procedures to follow when entering guestrooms as guests may be discovered sleeping, showering, or occupying rooms that should be vacant.

- When entering patient rooms, the housekeeper should greet the patient pleasantly, avoid disturbing the patient, and wear protective clothing if necessary.

- Housekeeping Departments in hospitality facilities are using computers to handle information. Housekeepers use the telephone system to access a central processing unit (CPU) of the computer network and input status codes. In this way, the front desk and the executive housekeeper can ensure that the status of all guestrooms is kept current.

- Types of reports and records include the preliminary room check, Lost and Found Log, room report, inventory report, and supply and material requisition.

- Methods used to control keys include storing keys in locked storage cabinets, requiring employees to sign for keys, requiring keys to be turned in at the end of a shift, and placing guestroom keys in locked boxes.

- Card entry systems provide both a cost-saving method of key control for hospitality facilities and increased guest security.

Chapter 17

Laundry Procedures and Equipment

Chapter Focus

The following Essential Knowledge and Skills are discussed in this chapter:

5B Describe environmental issues specific to an assigned workplace.

6A Analyze principles of time management and work-simplification when performing assigned tasks.

7A Develop guidelines for selecting equipment, supplies, and procedures for assigned tasks.

7B Apply appropriate procedures while operating equipment and using tools and products in the performance of assigned tasks.

7C Describe the impact of technology on equipment, supplies, and procedures utilized in the industry.

9A Perform appropriate laundry tasks according to industry standards.

9B Compare a variety of laundry products and their suitability for specific uses.

9C Explain the importance of prelaundry procedures.

9D Differentiate the functions of thermal, mechanical, and chemical energy in laundry operations.

9E Describe procedures for appropriately folding, storing, mending, and recycling linens.

9F Describe procedures for handling and cleaning contaminated linens.

Chapter Vocabulary

- bleach
- chemical energy
- colorfast
- commercial dryer
- dispersing
- emulsifiers
- enzyme
- extraction
- fabric softener
- finish
- fluorescent whitening agents (FWAs)
- linen
- linen folder
- linen storage cart
- load capacity
- mechanical energy
- ozone
- pH level
- pilling
- sequestering
- soiling
- sorting
- starch
- thermostat
- thermal energy
- wetting

Read chapter sections for additional terms related to laundry products, prelaundry procedures, laundry procedures, the washing process, and laundry equipment.

THE LAUNDRY OPERATION

The laundry department of an institution serves patients, guests, and staff by providing an adequate supply of clean and sanitized linen. The term ***linen*** is used to refer to a variety of items ranging from cleaning cloths to uniforms. Institutions may have in-house laundries, or they may rent linens through a commercial company.

Types of Laundry Operations

In-house laundries can be small or large. In small laundries, one or two attendants may be required to perform a wide range of tasks while in a large laundry an assembly line can be used or laundry operations can be automated.

When an assembly line is used, each attendant is responsible for completing a specific job, such as sorting laundry or operating washers, so that all work is accomplished quickly and efficiently. In automated laundry operations, linens are often transported by conveyor belts, and the laundry area may be constructed with a wall that physically separates soiled linen handling from clean linen handling. Commercial washers can be built into the barrier wall with doors on both sides so that soiled linens are loaded into the washer on one side of the wall, and clean linens are removed from the washer on the other side.

Goals of Laundry Operations

The goals of in-house laundries vary among institutions. Therefore, the procedures performed in laundries differ. For example, the goal of a laundry in a hospitality institution is to provide an adequate supply of clean linens to guests. Additionally, laundries in hospitality institutions may clean draperies, bedspreads, and employee uniforms, as well as provide personal laundry and dry cleaning services to guests.

In health care institutions, the goal of a laundry department is to prevent the spread of infection from soiled linens and prevent contamination of clean linens. In hospital facilities, soiled linen is sent directly to the laundry department. In some hospitals and health care facilities the laundry department may be a separate department from housekeeping.

Generally, hospital housekeeping staff are not required to change bed linen – this is the responsibility of the nursing staff and the laundry department. In some cases ward orderlies may help bag and store the soiled linen for collection by the laundry department.

Soiled linen and infected linen are kept separate to avoid cross-contamination. Infected linen is placed in specially designated laundry bags that can be placed directly into the washing machine without being unpacked. These bags are made from a fabric designed to dissolve during the washing process.

◆ Essential Questions: ◆ The Laundry Operation

1. What are some types of laundry operations?
2. How do the goals of a laundry in a hospitality institution differ to the goals of a laundry in a health care facility?

LAUNDRY PRODUCTS

In addition to cleaning, laundering removes odors, reduces wrinkles, restores a fresh appearance, and preserves the lives of fabrics. In order to achieve these results, one must select and use appropriate laundry products. Suppliers usually provide information on ingredients, proper application, and safe use of products. In addition, many suppliers or manufacturers also offer training sessions regarding the use and application of their products.

Each laundry room attendant must be thoroughly trained in the correct use of laundry products. The amount of a laundry product used is just as important as the type of product used. The size of the load and the amount of water used in the wash cycle determine the amount of detergent, disinfectant, bleach, or other product. Effective results can usually be achieved by following the manufacturer's recommendations.

Some laundry products contain a combination of ingredients while other products must be mixed to achieve effective results. Some products become dangerous when combined. Other products come premixed and packaged in properly proportioned amounts for easy and safe use. These premeasured packets are designed to dissolve in the wash water. Knowledge of products and product ingredients is important not only in achieving the most effective use of a product but also in assuring the safety of the user.

Products used to launder linens should be tested regularly to determine the pH level. The ***pH level*** indicates the acidity or alkalinity of a solution. A pH value of seven is neutral. Values from zero to seven indicate acidity, and values from seven to fourteen indicate alkalinity. If the pH level is too high or too low on the scale, linen discoloration and skin irritation can result. A kit that determines the pH level in the final rinse water can be purchased and used to test products.

Detergents

The washing agent used in the washing process is the detergent. Some detergents have water-softening ingredients to increase

BEST COPY AVAILABLE 471

cleaning action. Others may have enzymes. An ***enzyme*** is a substance that speeds up a chemical reaction. Enzyme detergents aid in breaking down complex soils, especially proteins such as egg and blood, so these soils can be more easily removed during the laundering process.

Laundry detergents are available in many different types and forms. Each type contains basic ingredients that perform specific tasks during the washing process. Detergents may contain surfactants, suds control agents, builders, tints and dyes, sours, breaks, and antiredeposit agents. Although some detergents may contain bleach and softeners, these laundry products are often added separately.

Factors Contributing to Amounts of Detergent Used. The amount of detergent used in the washing process depends upon water softness. Institutions using hard water may choose to mechanically soften water, increase the amount of detergent used, or add water softeners to the washing process. Decisions regarding water softness are usually made on the basis of cost-effectiveness.

A method that has proven effective in decreasing the amount of detergents used in the washing process is the use of ozone. ***Ozone*** is a gas formed by ozone generators by passing an electric current through the oxygen that exists in the wash water. The ozone acts as a soil-removing solvent, bleaching agent, and disinfectant. The chemical reaction formed by the ozone makes it possible to clean linens using fewer amounts of detergents at lower water temperatures.

Ecologically, fewer detergents contribute to protecting the environment by reducing the amount of detergents in waste water. Using cooler water temperatures saves energy. Additionally, linens washed by the ozone method may last longer than those washed with more detergents at higher water temperatures. Factors such as using fewer detergents, saving energy, and extending the life of linens contribute to saving money for the institutions as well.

FRIENDLY TO THE ENVIRONMENT
TM

Chemicals Present in Laundry Detergents.

- **Surfactant.** A ***surfactant*** improves the wetting ability of water, loosens and removes soils with the aid of mechanical action – washer agitation, manual scrubbing – and dissolves or suspends soils in water so they are not redeposited on fabrics. High-sudsing surfactants are particularly effective at removing oil and dirt.
- **Suds Control Agent.** A ***suds control agent*** is used in laundry detergents to control the amount of suds produced during the washing process. Low-sudsing detergents were originally designed for use in tumble-type automatic washers where excess suds interfered with the cleaning action of the washer.
- **Builders.** ***Builders*** increase the efficiency of cleaning agents by tying up or inactivating minerals in hard water. All granular laundry detergents and some liquid laundry detergents contain builders. Phosphate, an alkali, is used as a builder. Phosphate has the ability to sequester (surround and seize) water hardness minerals and hold them tightly in solution. Phosphates aid in the removal of soils and keep them from redepositing on fabrics.

In most geographical areas, phosphates are banned because it is determined they contribute to the eutrophication of streams and rivers. ***Eutrophication*** refers to increased levels of nutrients in a body of water. An increased level of nutrients causes the rapid growth of algae. As algae decays, oxygen levels in the water decrease, and fish die. The eutrophication process can be reversed by properly treating and disposing of wastewater and reducing runoff.

Laundry Aids

Tints and Dyes. Tints and dyes are sometimes used to restore color to fading table linens or change the color of sheets and towels used as cleaning cloths so they can be identified quickly. The color of towels and washcloths is not usually restored because the dye can come off onto individuals or bleed and stain surfaces or other fabrics.

Sours. ***Sours*** are used to lower the pH level of the water. They may also contain bluing and whiteners. Sours must be managed with care as excessive use may result in a sour odor remaining on the linens.

Breaks. ***Breaks*** are heavy-duty alkaline compounds designed to break soils in the soak cycle of the washing process. These compounds are used primarily for heavily soiled loads.

Whitening Agents

Bleach. ***Bleach*** is a laundry product used to whiten, remove stains, remove oily soils, deodorize, and disinfect. It is also effective in killing bacteria. When using bleach, observing the following guidelines will ensure effective results:

- Read directions and measure bleach accurately.
- Do not pour bleach directly on laundry.
- Dilute liquid chlorine bleach with water before adding to laundry agitating in the washer.
- Do not combine undiluted chlorine bleach and undiluted liquid detergent. Harmful fumes may be produced.
- Avoid adding chlorine bleach and enzyme detergent to wash water at the same time. Chlorine bleach inactivates enzymes.
- Do not mix chlorine bleach with ammonia or acids, such as vinegar or rust remover. Mixing chlorine bleach with acid can produce a toxic gas that may cause death.
- Bleach the entire item rather than only stained areas so any color change will be less noticeable.

Chlorine bleach is available in liquid or powder form and can be used on all washable, colorfast cotton and permanent press fabrics. Chlorine bleach should always be diluted. When chlorine bleach is not diluted, color may be removed from fabrics or fabrics may be weakened. Chlorine bleach may cause fabrics to discolor if an excessive amount of iron is present in the water supply. Some fabrics may have a chlorine retentive finish. These fabrics can turn yellow when chlorine bleach is used in the washing process. A packaged color remover must be used to remove yellowing.

Oxygen-based bleach provides bleaching action for stain and soil removal and can be used on all colored, washable fabrics. Oxygen bleaches usually contain other cleaning ingredients, such as water softeners, enzymes, and fabric whitening agents. These bleaches are milder than chlorine bleaches, are ineffective on heavy stains, and work best in hot water or in a presoak. Chlorine and oxygen-based bleaches should not be mixed. When mixed, the actions of the bleaches counteract each other and effective results are not produced.

Bluing. Bluing is a liquid or powder added to laundry solutions to prevent white fabrics from yellowing. Laundry detergents often contain bluing formulations that add a desirable blue-white color to white fabrics.

Fluorescent Whitening Agents (FWAs). Most detergents use ***fluorescent whitening agents*** (***FWAs***) rather than bluing. FWAs are complex organic molecules that adhere to fabrics as a dye would. They absorb unseen ultraviolet rays from the sun or fluorescent light sources and convert this energy to visible light to enhance fabric appearance and maintain whiteness or brightness. These whitening agents help to counteract the yellowing of fabrics that occurs with age. FWAs are found in presoaks, liquid fabric softeners, detergent boosters, and oxygen bleaches.

Fabric Softeners

A ***fabric softener***, or ***fabric conditioner***, is a product that is used during the laundry process to give laundry a soft, smooth feeling. Fabric softeners work by coating yarn fibers with a substance that makes them smooth. This coating helps prevent static electricity, reduce shrinkage, and minimize wrinkling to make ironing easier. Additionally, fabric softeners add a pleasing fragrance to laundered articles. However, continual use of fabric softener may cause bath towels to lose their absorbency.

Liquid Fabric Softeners. Liquid fabric softeners are added directly to the final rinse. Many washing machines have dispensers that automatically dispense fabric softener. Fabric softener should not be poured directly on fabrics since staining will occur. Stains caused by fabric softener can be removed by wetting the stain and rubbing with bar soap.

Sheet or Packet Fabric Softeners. Sheet or packet fabric softeners are placed in the dryer with laundry. At high temperatures, sheets or packets can cause staining. Wet bar soap can be applied to remove stains.

Starches

Starch is used to give body to fabrics, increase resistance to soiling, and make ironing easier. Starch is available as a liquid, a powder, or a spray. Liquid or powder starch can be added to the washer at the end of the laundry cycle. In commercial laundries, a special washer is used for applying starch. Also, liquid and powder starches can be mixed with hot or cold water and applied before or during ironing. Spray starches are generally applied during the ironing process.

Disinfectants

In the home laundry, washing with detergent in an automatic washer followed by drying in an automatic dryer provides hygienic laundering. Health care facilities must provide higher standards of disinfection than normal washing and drying provides. Hospitality facilities as well as schools and manufacturing plants may need added protection because of the large number of people they serve. Many institutional laundries routinely use disinfectants in laundry procedures in order to protect individuals from infection.

Disinfectants used in treating laundry must not leave a residue that is harmful to the skin and must not change colors or other properties of fabrics. Liquid chlorine bleach is the most common disinfectant used to treat laundry, but it is not safe for use with all fabrics. Liquid chlorine bleach is added to the wash water and removed during rinsing. When bleach remains on fabrics, the skin can become irritated.

When a product has disinfecting ability, the Environmental Protection Agency (EPA) requires the percent of ingredients having disinfecting properties to be listed on the label as active. All other ingredients are considered inert or nondisinfecting.

Disinfectants can be added to the washing process with the detergent, during the rinse, or with the fabric softener. Adding disinfectant with the fabric softener is preferred because fabric softeners attract small amounts of moisture from the atmosphere to the surface of the fabric. This moisture allows the disinfectant to penetrate the cell walls of the bacteria and inhibit their growth.

For laundry that cannot be bleached, the following types of disinfectants can be used:

- quaternary ammonium compounds (quats) - Quats are effective only during the rinse cycle. Soaps and detergents deactivate quats. The percentage of quats must be high in content in order to be effective.
- synthetic phenols - Synthetic phenols can be used in wash or rinse water. However, synthetic phenols will not work with all detergents. The percentage of synthetic phenols must be high in content in order to be effective.
- natural pine oil products - Natural pine oil products are effective disinfectants when they contain at least 80 percent pine oil. Natural pine oil products may be added to wash or rinse water.

It is important to regularly check laundry for bacterial growth. Samples of water can be taken before a wash cycle begins and after it is completed. Cultures of each sample can be grown to determine if the washing formula is effectively controlling bacterial growth.

Ammonia

Ammonia can assist detergent in removing grease and oily dirt. Institutions that launder greasy rags and uniforms may add ammonia to the wash water during the laundry process. Also, ammonia has the ability to loosen stains, and it has a slight bleaching action. Some types of ammonia contain a small amount of soap or detergent. Ammonia is used most often in household cleaners rather than in laundry products.

◆ Essential Questions: Laundry Products ◆

1. Why should laundry attendants be thoroughly trained in the correct use of laundry products?
2. What are some examples of ways laundry facilities can operate as environmentally friendly?
3. What are the purposes of surfactants, builders, and breaks?
4. What guidelines should be followed for effective use of bleach?
5. In what ways do chlorine and oxygen-based bleaches differ?
6. What are examples of whitening agents other than bleaches?
7. For what reasons may fabric softeners be used?
8. For what reasons may starches be used?
9. When bleaching is not possible, what are some other types of disinfectants that can be used?
10. When might ammonia be used in the laundry process?

PRELAUNDRY PROCEDURES

Contaminated Laundry

Communicable diseases are a major concern in health care facilities. Communicable diseases are illnesses that can be easily passed from one person to another. One method used to reduce risk is to observe universal precautions developed by the Center for Disease Control (CDC). Universal precautions assume that blood and certain body fluids of all patients be considered potentially infectious for blood borne pathogens. Pathogens are agents that carry the disease, such as bacterium or viruses.

Hospitals and health care institutions carefully monitor the handling of soiled linens to prevent the spread of diseases caused by cross contamination. Guidelines for the safe handling of contaminated laundry follow:

- Handle contaminated laundry as little as possible.
- Bag or otherwise contain contaminated laundry at the location where it was used, for example the patient's hospital room.
- Do not sort or rinse contaminated laundry in the area of use as this may result in cross contamination.
- Bags or containers for contaminated laundry must be properly labeled.
- All employees who have contact with contaminated laundry must wear protective gloves and other appropriate personal protective equipment.
- If contaminated laundry is shipped off-site to a second facility which does not utilize universal precautions in the handling of all laundry, the contaminated laundry must be placed in laundry bags or containers that are properly labeled and color-coded.

Sorting

Sorting is the process of separating items to be washed into groups that can be washed together safely. The sorting process can begin at the point of use as linens are removed from beds, tables, and bathrooms. Linens can be bagged in correct groups and placed in laundry chutes or on carts for transportation to the laundry. In large facilities with a variety of laundry needs, laundry may be bundled in a unique way so laundry room attendants can easily identify the type of care the linens require.

Linens should be sorted into a minimum number of categories. Too many categories result in small loads and underfilled washing machines. Too few categories result in large loads that lower the quality of each washing. The sorting method used in a laundry room should help the work proceed quickly and efficiently.

Following the laundry process, linens may be sorted according to the type of handling required. Examples of this method of sorting are as follows:

- Linens that will be removed from the washer and ironed dry are washed together.
- Linens that will be tumbled dry are washed together.
- Small items, such as napkins, pillowcases, and small tablecloths, may be washed separately from sheets and large tablecloths. Placing items of similar size in a load results in a more efficient folding process.
- Linens that shed lint, such as towels, are not washed with linens that collect lint. Fabrics made of manufactured fibers, permanent press fabrics, and napped fabrics, such as corduroy and velveteen, are subject to collect lint.

- Uniforms that require starch are washed together.

When laundry is sorted, it is important to identify items in need of repair. Linens should be mended before they are washed. A rip or tear may ravel and become worse during the washing process. Employees should be familiar with procedures for handling linens in need of repair. Further information regarding the mending of linens is included in Chapter Eighteen.

General guidelines to observe when sorting laundry are as follows:

- Sort laundry on a table or counter to save energy and time.
- Wash like items together to prevent tangling and excess wrinkling and to control load weight.
- Wash white, brightly colored, colorfast, and noncolorfast items separately. ***Colorfast*** items keep their original color without fading or running.
- Wash heavy, bulky items, such as blankets, bedspreads, and mattress pads, by themselves.
- Do not wash colored fabrics with lint shedding fabrics. Lint is difficult to remove from colored linens.

Sorting is easier when the same type and color of fabric is used throughout an institution and when types of soil and stains are fairly constant. Most institutions, however, use a variety of fabrics that require specialized procedures for treating soil, stains, and damage. Many institutions use linens in various colors to identify fabrics and finishes easily. After being washed, the linens are sorted into groups according to the type of finish to be applied.

Identifying Fabrics. It is important for laundry attendants to be able to identify different types of fabrics in order to obtain effective results when washing. Permanent labels in uniforms and on linens provide care instructions and information regarding fiber content, fabric finishes, shrinkage control, colorfastness, and special precautions. Fabrics commonly found in institutions include the following:

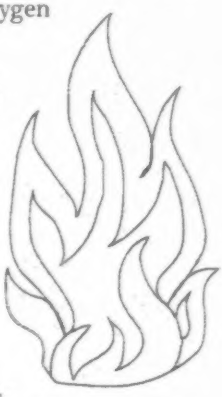
- Cotton - Cotton is absorbent and durable, but it wrinkles easily unless treated to resist wrinkles. Cotton can be machine washed and tumble dried, and hot water can be used to wash whites and colorfast items. White cotton fabrics can be bleached with chlorine bleach. Colored fabrics should be tested for colorfastness before being bleached. An oxygen bleach is safe for use on colored fabrics that are not colorfast to chlorine bleach. Fabric softener can be used to improve the softness and comfort of cotton and to reduce wrinkling.

- Polyester - Polyester fabrics attract and absorb oily substances, resist wrinkling, and do not shrink or stretch. Polyester has a tendency to pill during the laundering process or during normal use. ***Pilling*** is the formation of balls of fiber on the fabric surface. Pilling is caused when the polyester fabric rubs against other fabrics.
- Polyester/cotton blends - Fabric made of a blend of polyester and cotton is commonly used in institutions. This fabric combines the best qualities of both cotton and polyester fibers. Polyester/cotton fabric is comfortable, long-wearing, wrinkle resistant, and easy to clean.

Identifying Finishes. A ***finish*** is a treatment or process used to improve different fabric characteristics. Fiber weaknesses can be controlled by special finishes. For example, a finish can be applied to 100 percent cotton to reduce wrinkling and the need for ironing.

It is important to identify types of finishes since they may affect how an item should be laundered. Types of finishes include the following:

- Permanent-press finish – A ***permanent-press finish*** is a resin and heat treatment that is applied to some fabrics. This produces a finish that requires little or no pressing after laundering. Permanent-press items also retain creases or pleats that were part of the initial construction. Fabrics treated with a permanent-press finish are sometimes referred to as ***wash-and-wear*** or ***durable press***. Permanent-press fabrics require a cooler rinse temperature and a cool-down at the end of the drying cycle. Linens treated with a permanent-press finish should be separated from untreated linens and laundered using a permanent-press cycle.
- Crease and wrinkle-resistant finish – A ***crease and wrinkle-resistant finish*** is applied to cotton and cotton blend fabrics. This type of finish allows fabrics to resist wrinkling and creasing and provides good shape retention.
- Soil-release finish – A ***soil-release finish*** was introduced to combat the problem of removing oil and grease stains from manufactured fibers and permanent-press fabrics. Soil-release finishes are applied to 100 percent polyester fabrics and permanent-press blends to improve their ability to release oily soils during laundering. This type of finish is applied to table linens and fabrics made into uniforms.
- Stain-repellent finish – A ***stain-repellent finish*** is applied to fabrics to provide protection from stains. A stain-repellent finish contains wax, resin, or plastic that coats a fabric and allows it to shed water-based stains. The finish repels liquids causing them to remain on the surface rather than soak into the fabric. Many stain-repellent finishes are removed during washing or dry cleaning and must be renewed by a dry cleaner. However, an aerosol spray is available for treating small areas of fabric. Stain-repellent finish is used mainly for outerwear, table linens, and some uniforms.
- Flame-resistant finish – A ***flame-resistant finish*** prevents fabric from supporting or spreading flames. Fabric treated with a flame-resistant finish is self-extinguishing when removed from the source of flame, but it is not fireproof. As the fabric burns, the finish cuts off the oxygen supply or changes the chemical makeup of the fibers. The advantage of a flame-resistant finish is that it has a slow burn time and supports a smaller flame which allows time to take action. The Flammable Fabrics Act requires items such as carpets, rugs, mattresses, and children's sleepwear to be treated with a flame-resistant finish. Cotton, rayon, and linen fabrics are flammable unless treated. Polyester and nylon fabrics melt, but they do not support flames. Wool and some fabrics made of manufactured fibers are naturally flame resistant and do not require a flame-resistant finish. Flame-resistant finishes often remain on fabrics after many launderings. However, the effectiveness of the finish is diminished when washed in soap, nonphosphate detergents, or chlorine bleach. Although the finish is diminished, it still provides more protection against flames than untreated fabric. In areas where phosphates are banned, heavy-duty citrate-based liquid laundry detergent should be used to wash flame-resistant fabrics. Washing flame-resistant fabrics in a phosphate detergent can restore flame-resistant qualities.

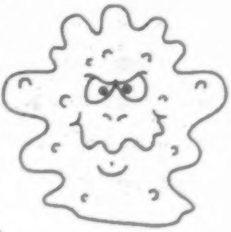


- Shrink-resistant finish – A ***shrink-resistant finish*** is a chemical finish that reduces the shrinkage of fabric. Shrink-resistant finish is used mainly on cotton fabrics and does not require special handling.

Treating Stains

Any item that is stained or heavily soiled requires special treatment before being laundered. ***Soiling*** means to make dirty. ***Stains*** are soiled or discolored spots. Identification of the stain is necessary before the correct treatment can be used. Immediate action is important in removing stains. Three basic methods used to treat stains are soaking, pretreating, and stain removal.

Soaking. Many stains can be removed by soaking them in a basin, laundry sink, or washer filled with warm or cool water and a presoak product containing enzymes. Hot water should not be used since it tends to set protein stains. Soaking is effective in removing stains such as egg, baby formula, chocolate, grass, blood, and body soil. The soaking time depends on the type of fabric, the age of the stain, and the amount of stain. Most items should be soaked at least thirty minutes, but problem stains can be soaked overnight. Soaking is recommended for heavily soiled, yellowed, or grayed fabrics. Excess solution should be removed from soaked items before items are laundered. Small greasy areas can be presoaked using a degreaser solution or spray prior to washing.



Pretreating. Pretreating is an effective way to treat small stains, soil located inside cuffs and collars of uniforms, and grease spots on permanent-press fabrics. When pretreating, stain remover should be applied to the back of a stain rather than the front. This method helps push the stain off of the surface rather than force it into the fabric.

Stain Removal. Stain removal involves removing a stain before an item is laundered. Employees should be trained in the effective use of stain removal techniques. Additionally, laundry attendants should be familiar with the fabrics used in an institution and should have access to a stain removal guide and stain removal kit. A ***stain removal kit*** contains the following items:

- Treatment solutions, such as enzyme treatment
- Neutral detergent
- Nonflammable dry cleaning fluid
- Ammonia
- Denatured alcohol
- White vinegar
- Rust remover
- Clean, white towels
- Putty knife
- Soft-bristled scrub brush

When removing a stain, one should first determine the cause of the stain. This is important since different methods are used to remove different types of stains. It is important to begin working slightly outside the stain and work in a circular motion toward the center of the stain. This prevents the stain from spreading. A blotting motion rather than a rubbing motion should be used since rubbing motions can damage fabric. Overwetting should be avoided since this may cause fabric to shrink.

Once the stain is removed, the same procedure should be used to rinse the fabric with clear water. After rinsing, the fabric should be allowed to air dry. If the stain is not completely removed, the procedure should be repeated. Once a stain is removed, the fabric should be laundered. Most stains can be removed following this procedure. Methods for removing common stains from washable fabrics are included in Table 17.1.

When using a stain remover, always test it on an inconspicuous area of the fabric before treating the stain. The following procedure can be used to test stain removers:

- Apply the amount of stain remover recommended on the package.
- Allow the stain remover to remain on the fabric sample for the recommended amount of time.

- Rinse the stain remover from the fabric.
- Examine the area and look for any change in color or texture of the fabric. If any changes appear, the stain remover should not be used on the fabric.

◆ Essential Questions: ◆ Prelaundry Procedures

1. What are guidelines for the safe handling of contaminated laundry?
2. Why should laundry be sorted into groups that can be washed together safely?
3. Why is it important to repair damaged linens before laundering?
4. How does the identification of fabrics and finishes affect the laundry process?
5. How do the stain treatment methods of soaking, pretreating, and stain removal differ?

LAUNDRY PROCEDURES

The provision of clean, fresh, sterile linens is dependent upon effective laundry procedures. Laundry supervisors need to be familiar with laundry chemistry and the effects of a variety of washing formulas. ***Washing formulas*** are developed using accurate physical and chemical measurements to determine such factors as washing time, rinsing time, temperature selection, agitation speed, and automatic addition of chemical detergents, bleaches, and softeners. Laundry supervisors are able to obtain consistent results at a cheaper cost when specific washing formulas are used. Additional information on washing formulas is included in the laundry equipment section of this chapter.

In addition to applying correct washing formulas, laundry attendants are responsible for following specific procedures when laundering linens. An example of a procedure for laundering linens is as follows:

- Fluff-dry linens left in the dryers from the previous day. A few loads of dried linens are often left in dryers at the end of the workday. The purpose of this is to have work ready for laundry attendants when they arrive. Laundry attendants can begin work immediately and not waste time waiting for dirty linens to arrive.
- Begin washing dirty linens loaded into washers the previous day. Apply appropriate washing formulas.
- Fold the fluff-dried linens.
- Transfer freshly washed linens to dryers when the wash cycle is finished.
- Fold dried linens and place on linen exchange carts or in the linen supply room.
- Repeat the procedure as dirty linens arrive in the laundry.

Laundry attendants often encounter problems when performing laundry procedures. Examples of common laundry problems and their causes are listed in Table 17.2.

Laundry attendants are also responsible for laundering items such as blankets, mattress pads, bedspreads, cloth bath mats, and shower curtains. Some items, for example blankets and mattress pads, are laundered once or twice a month or more frequently if needed. Bedspreads are laundered or dry-cleaned monthly or as needed.

◆ Essential Questions: ◆ Laundry Procedures

1. Why do laundry supervisors need to be familiar with laundry chemistry and the effects of a variety of washing formulas?
2. What are examples of common laundry problems and their causes?

Stain Removal Chart for Washable Fabrics	
Stain	**Removal**
Adhesive Tape Chewing Gum Rubber Cement	Harden by rubbing with ice. Remove excess gummy matter carefully with a putty knife. Remove remaining stain with a safe cleaning fluid.
Asphalt Tar	Pour trichloroethane through the fabric. Repeat. Rinse and launder. Some stains may be impossible to remove.
Beverages (alcoholic and soft drinks) Perfumes	Sponge with cool water and glycerine. Soak 30 minutes. Treat with detergent. Sponge with alcohol if safe for fabric.
Blood Pencil (lead)	Sponge with cool water. Soak 30 minutes. Rub liquid detergent into area; rinse. If stain remains, apply a few drops of ammonia and repeat detergent treatment. Lead pencil may be removed from some fabrics with a soft eraser.
Butter Cream Chocolate Cosmetics Gravy Grease Mayonnaise Milk Oil Ring-around-the-collar Sauces Shortening Smoke Soot Vomit Wax	Soak stain in cold water for 30 minutes. Rub liquid detergent into stain. Rinse and dry. If stain remains, sponge with a safe cleaning fluid and dry. Repeat if necessary.
Candle Wax Paraffin	Scrape excess off surface and place fabric between several layers of paper tissue and press with warm iron. Remove remaining stain with a safe cleaning fluid, bleach appropriate for the fabric type, or ammonia.
Candy (nonchocolate) Catsup Coffee Egg Tea (no cream) Vegetables	Sponge stain with cold water. Soak for 30 minutes in detergent. Sponging with vinegar followed by alcohol or bleach appropriate for the fabric may remove final traces.
Ink (ballpoint)	Sponge with alcohol. If stain remains, sponge with safe cleaning fluid.
Crayon	Scrape off excess. Sponge detergent onto stain. Rinse and dry. If stain remains, sponge with safe cleaning fluid.

Table 17.1 *(continued on page 284)*

BEST COPY AVAILABLE

Stain Removal Chart for Washable Fabrics	
Stain	**Removal**
Deodorant Perspiration Urine	Sponge with detergent. Launder in water temperature and bleach appropriate for the fabric type. Color may or may not be restored by sponging fresh stains with ammonia and old stains with vinegar. Dilute ammonia with an equal amount of water if used on wool, mohair, or silk. Rinse.
Fabric Softener	Rub black spots with detergent and launder. For a gray or bluish buildup, soak in detergent and bleach appropriate for the fabric; launder.
Fingernail Polish	Sponge white cotton fabric with nail polish remover. Sponge other fabrics with amyl acetate (banana oil). Launder. Repeat if necessary.
Fruits Juices	Sponge immediately with cool water. If safe for fabric, pour boiling water through stain. Work detergent into stain; rinse. Bleach safe for fabric type may remove final traces.
Grass	Work detergent into the stain and rinse. If colorfast, moisten with alcohol. If colorfastness is questionable or fabric is acetate, dilute alcohol with two parts water.
Laundry Product	Soak in one part vinegar to four parts water in a plastic container.
Mildew	Moisten with lemon juice and salt, if safe for fabric, and allow to dry in the sun, or sponge with hydrogen peroxide.
Mud	Let dry and brush. Soak in cold water with detergent. For iron clay soils, remove the same as rust. If stain remains, sponge with alcohol.
Mustard	Work glycerine into stain. Rinse. Launder. Prolonged soaking may be necessary. If stain remains, sponge with alcohol.
Paint Varnish	Treat the stain before it dries, if possible. Sponge with thinner solvent recommended on the label, turpentine, or trichloroethane. While still wet with solvent, apply detergent and soak. Launder. Repeat if necessary. Stain may be impossible to remove.
Rust	Sprinkle salt on the stain and moisten with lemon juice if safe for fabric. Dry in the sun and rinse. Repeat if necessary. Commercial rust or color removers may be used as directed. Do not use chlorine bleach.

Table 17.1 *(continued on page 285)*

Stain Removal Chart for Washable Fabrics	
Stain	**Removal**
Scorch	Work detergent into stain immediately. Rinse. If stain remains, apply hydrogen peroxide and ammonia. Rinse. Severe scorching damages fabrics and cannot be removed.
Shoe Polish	Work detergent into stain and rinse. Sponge with alcohol and rinse. Apply safe cleaning fluid or turpentine. Depending on the kind and color of polish, several methods may need to be used.
Yellowing	Wash in hot water with an increased amount of detergent and as strong a bleach as is safe for the fabric. Prolonged soaking may be necessary. Use a color remover on white fabrics.

Table 17.1 - Cont'd.

THE WASHING PROCESS

Three forms of energy are necessary to remove soil from fabric: mechanical, chemical, and thermal. ***Mechanical energy*** is supplied by the washing action of the washing machine. Bleach, detergents, and other additives supply ***chemical energy***. And, warm or hot water supplies ***thermal energy***. If one source of energy is reduced, one of the other sources of energy must be increased to maintain the same level of laundering performance.

Mechanical Energy

Mechanical energy is provided by the rotation of the agitator or tub. Agitation is necessary for cleaning, but too much agitation can result in damaging both fiber and item construction. Most washers offer a choice of agitation speeds. The types of fabrics being washed determine whether the agitation speed should be normal or slow and gentle. Agitation speed, load size, water level, and operation time can increase or decrease the effectiveness of mechanical energy.

Mechanical energy or the length of the wash cycle can be increased to compensate for reduced water temperature (thermal energy). Increased wash time, however, can reach a point of diminishing return and can increase fabric abrasion.

Chemical Energy

Pretreating, soaking, and adding more bleach or detergent can increase chemical energy. In some geographic areas, detergent effectiveness has been reduced because of laws banning the sale of phosphate detergent. Removing phosphates reduces the effectiveness of detergents.

Chemical Energy of Detergents. The chemical energy of detergents can be understood by visualizing a single detergent molecule. The shape of this molecule can be compared to a balloon on a stick. It has a

Common Laundry Problems / Causes	
grayed fabric	▪ insufficient amount of detergent ▪ using soap in hard water ▪ water temperature too low ▪ overloaded washer ▪ incorrect sorting of items
yellowed fabric	▪ buildup of body soil ▪ incomplete removal of body oil ▪ wash water temperature too low ▪ use of bleach on fabrics made of manufactured fibers
yellow or brown stains	▪ iron minerals in water
stiffness of fabrics	▪ incomplete rinsing of soap or detergent ▪ fabric carbonate buildup from using nonphosphate detergent
wrinkling of permanent-press fabrics	▪ overloading of washer and/or dryer ▪ failure to use permanent-press cycle ▪ overdrying
shrinking	▪ overdrying

Table 17.2

round head and a rod-like tail. The balloon, or head, loves water and dives right in to immerse itself. But the stick, or tail, hates water and tries to escape it by sticking out into the air or attaching itself to anything other than water, such as the side of the washer, dirt particles, or fabric. Millions of these molecules become active when detergent is added to wash water.

As the water is agitated, the molecule tails, which have become attached to the soil particles, literally pull the soil away from the fabric. The clean fabric surfaces then quickly attract the water-hating tail of more molecules trying to escape the water, and these pull more soil away from the fabric.

The dirt particles and the clean fabric become covered entirely with molecules, their heads facing the water. Since the heads repel each other, the dirt and the fabric have no desire to make contact. The dirt particles remain suspended until rinse water flushes the soil particles away, leaving the fabric clean. Similar chemical action takes place when suds are applied to any hard surface or to the body. Oil and dirt particles are pulled away from the surface or skin, surrounded by molecules that repel each other, and floated away by rinse water.

Chemical Energy Processes that Dissolve and Remove Soil. The following four basic processes dissolve and remove soil:

- Wetting - ***Wetting*** is the first step in cleaning. By itself, water tends to form droplets that rest on top of the surface without penetrating soil. Laundry and cleaning products contain a surface active agent, known as a ***surfactant***, which makes the water spread out evenly and allows the cleaning solution to get in between the soil and the surface. This loosens and removes the soil.

- Emulsifying - Fats, oils, and greasy soils are difficult to dissolve. ***Emulsifiers*** are chemicals that break fats, oils, and greasy soils into tiny particles so they can be easily removed from the surface and kept suspended in the wash solution until rinsed away. Emulsification is the action of an alkali or soap which breaks up the globules of grease and oil into very small particles and keeps them separated so that they do not reform into a solid group until they are rinsed out of the load.
- Dispersing - Dispersing is similar to emulsifying, but ***dispersing*** breaks up solid soil and keeps it finely divided and suspended until it can be rinsed away. Solid dirt such as carbon, dust, earth, and clay is difficult to remove from fabrics. Solid soil firmly holds onto the fabric and is often ground into it. Water alone will not remove solid soil, but soaking in soap and water gradually lifts soil off and suspends it. This soaking action is very slow, but can be speeded up by mechanical action and the use of alkalies. Alkalies prevent the dirt from being redeposited.
- Sequestering - ***Sequestering*** is a chemical reaction that overcomes the effect of the minerals in water. Some laundry products have the ability to sequester certain water minerals that otherwise would prevent other laundry product ingredients from dissolving and removing soil.

Washing Program. The washing program consists of several cycles: soak, wash, rinse, and extract. The soak cycle is used to soak linens and aids in dissolving soils. Soil-breaking products, detergents, and other chemicals are added during the wash cycle which is the main cleaning process. The rinse cycle removes chemicals from the linens. And, the extract cycle spins moisture from the load before it is moved on to the ironing or drying phase.

The Break. The start of the washing cycle is one of the most important operations in the wash formula. The first cycle is the soak cycle, often referred to as the ***break***. During this cycle, the wash tub is filled with water to proper levels. Alkalies may be added during the break to increase soil removal. The higher the temperature on the break, the faster the washing action. Breaks are run in cycles lasting from five to ten minutes. A properly executed break will remove approximately 60 percent of the soil from fabrics.

Water Levels. Water levels influence the level of cleaning power. If the wash formula calls for a water level of six inches and the machine is actually filling with eight inches of water, the concentration of laundry products is diluted and the cleaning power is diminished. If the water level changes, the wash formula should change also.

Bleaching. Bleaching is done when light, running suds are in the wash water. The suds slow the bleaching action until the bleach has had a chance to become evenly distributed throughout the load. Bleach is selective and immediately attacks dirt. If there is considerable soil left in the load and little suds, the bleach will not distribute evenly. With correct hot water temperatures and correct pH level (10.2-10.5, which is alkaline), a five to ten minute bleach cycle is sufficient. The effectiveness of a bleach cycle depends on the water temperature and level of alkalinity.

Rinse Cycle. Rinsing is a matter of dilution and usually three minutes after the water level is obtained is sufficient. Rinsing any longer than this wastes time. Alkalies in detergents speed up the rinsing process.

Thermal Energy

Water Temperature. Water temperature is an important factor affecting

the laundry process. Water temperature helps to determine how clean and how wrinkled fabrics become during washing. Correct water temperature can also insure the durability of a fabric finish and control the amount of fading caused by washing. Linens can be washed in hot, warm, or cold water. Increased water temperatures generally result in increased soil removal.

Hot Water. Hot water cleans quickly and sanitizes, but it is not suitable for all fabrics. For proper laundering performance, a water heater should be set to deliver 140°F water at the tap. At this setting, the wash water in an automatic washer with the controls set on hot will be approximately 130°F with ten degrees lost as a result of the cooling effect of the washer components and items in the tub.

White fabrics, light colorfast fabrics, and heavily soiled permanent-press fabrics should be washed in hot water (130°-160°F or 54°-71°C) using heavy duty, all-purpose detergent. Hot water is essential in removing oily and greasy soils. After several washings in reduced water temperatures, heavily soiled or white fabrics may become yellow or gray and dingy looking. The laundry in health care facilities is an example of the type of laundry that is washed in hot water.

Warm Water. Warm water reduces fading, preserves permanent press finishes, and reduces wrinkling and shrinkage. Warm water is a half-and-half mix of hot and cold water. The temperature of warm water is approximately 100°F. While some loads of heavily soiled linens may require a hot water wash, the majority of loads can be washed effectively in warm water when proper laundry procedures are followed. Colored fabrics, lightly soiled fabrics, permanent press fabrics, and noncolorfast fabrics should be washed in warm water (90°-110°F or 32°-43°C) using a mild detergent. The lightly soiled laundry in hospitality institutions is washed in warm water since it is used only one day.

Cold Water. Cold water does not clean as well as hot water, but it reduces the wrinkling and fading of fabrics and saves energy. The temperature of a cold water wash is usually about 60°F. Since cleaning performance is minimized in a cold water wash, a liquid detergent or a predissolved powder detergent should be used. In water temperatures below 60°F, detergents are virtually ineffective – they do not work. Oily soils are not emulsified and they redeposit on laundry causing laundry to remain soiled.

Supplementing Thermal Energy. The thermal energy of warm or cold water temperatures can be supplemented somewhat by increasing the amount of detergent used, bleaching if possible, and presoaking or pretreating stains. The cost of additional detergent and bleaches used in cold and warm water washing may be greater than the cost savings gained from using the lower wash temperature.

To conserve energy, the coolest water temperature available that still produces desired results should be used. In addition, laundry should be rinsed in cold water. A cold rinse is effective in rinsing laundry washed in any temperature.

◆ Essential Questions: The Washing Process ◆

1. How do mechanical energy, chemical energy, and thermal energy differ?
2. What is the difference in emulsifying and dispersing?
3. What benefits are derived from washing in hot water, warm water, and cold water?

LAUNDRY EQUIPMENT

Laundry equipment used in institutions is similar to laundry equipment used in the home. The main differences between institutional laundry equipment and home laundry equipment are the size and load capacity. ***Load capacity*** is the amount of laundry a washer or dryer can thoroughly wash or dry. Load capacity is measured by pounds and varies among machines. For example, a home washing machine typically holds from twelve to sixteen pounds of laundry. In comparison, a commercial washing machine can have a load capacity as high as 600 pounds.

Commercial Washers

Commercial washers clean laundry by a combination of mechanical agitation and detergent action. Water motion is created in the inner tub of the washer causing fabrics to bend, flex, and scrub against each other as a detergent solution is forced through them.

Front-loading Washers. A common type of commercial washer is the front loader. A ***front loader*** is a washing machine that is loaded from the front. Front loaders have extensions called ***baffles*** on the inside of the inner tub. Baffles help move laundry as it tumbles. Front loaders use the principle of gravity to tumble laundry repeatedly. During tumbling, a detergent solution moves through the wet laundry and picks up, dissolves, and removes soils as the laundry rubs together. The inner tub of the front loader moves in a clockwise direction and then reverses to a counter clockwise direction. Laundry falls once it reaches the top of the tub. This differs from the top loading washing machine found in the home in that the top loader agitates laundry back and forth. An example of a front loader washing machine is shown in Figure 17.1.

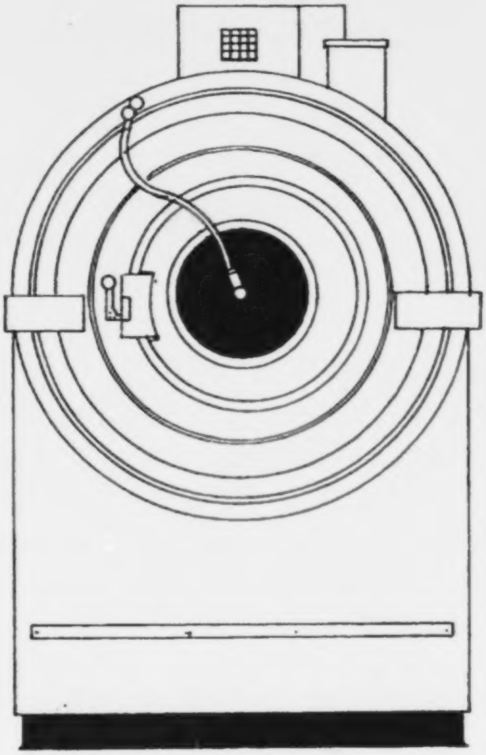


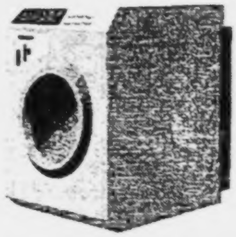
Figure 17.1

There are two basic ways that washers measure the amount of water filling the tub. In some washers, the water runs for a certain amount of time and then turns off. This is known as ***time fill***. If the water pressure is low or inconsistent, the water may not always reach the desired level needed to wash effectively. Washers also use the ***pressure fill method***. In the pressure fill method, water continues to run into the tub until it reaches a desired level. When the desired level is reached, the water turns off. Since the same water level is always reached, the pressure fill method is more effective and is the method currently used by most commercial washers.

Types of Washer Cycles. Most commercial washers have a variety of cycles to choose from. A ***cycle*** is an automatic series of steps that a washer goes through in order to wash a load effectively. A standard cycle starts when water enters the tub. Laundry is then agitated or tumbled, and the wash water is extracted. More water is used to rinse the laundry. Many washers use a spray rinse followed by an agitated deep rinse and an additional spray rinse. After the rinse, water is extracted. ***Extraction*** is the process of spinning, draining, or squeezing water out of laundry. When the inner tub of the washer spins, water is forced out through holes in the tub and drained.

Commercial washers allow the user to select a cycle that best suits the wash load. The amount of soil, the kind of fabric, the construction of the items, the color of the fabric, and the equipment used should be considered when choosing a wash cycle. A standard cycle is a permanent press cycle. At the end of the permanent press cycle, there is a cool-down period in which cooler water is used to cool garments and minimize wrinkles that might be set in during extraction. Many washers have soak or prewash settings to meet special needs. The cycles of washing machines differ, but all washers control the following conditions:

- Fill
- Wash and rinse temperature ranges
- Wash time
- Total cycle time
- Agitation speed
- Spin speed



Some laundries may divide the wash process into two parts with two separate machines. In one process, laundry may be washed in a washer and then loaded into a cart and taken to an extraction machine. An ***extraction machine*** is a machine that spins or squeezes water from laundry.

The other preferred method is to use a washer/extractor machine. A ***washer/extractor machine*** is similar to a home washing machine in that the machine both washes and extracts water from laundry. Washer/extractors reduce the amount of laundry handling and physical lifting. In addition, the cycle time is shortened, and the potential for accidents is decreased because the floor does not become wet.

Computerized Commercial Washers. Sophisticated laundry equipment is now available in the form of computerized commercial washers. These computers can be programmed to maintain the correct water temperature and to dispense the correct amounts and types of detergent, bleach, starch, or softener at the right stage of the washing process. Hoses, hooked directly to jugs of liquid laundry products, provide automatic dispensing to the washer in the correct amounts.

Computerized washers allow the user to push buttons that describe the type of wash being done. Some commercial washers have programmed cards that the operator inserts into a special location on the washer. These cards contain information on the types and amounts of laundry products to be dispensed, cycle length, and water temperature.

Guidelines for Using a Commercial Washer. When using a commercial washer, effective results can be achieved by observing the following guidelines:

- Read and follow the manufacturer's instructions.
- Load the washer properly.
- Set the washing controls according to the size and type of the load.
- Select the correct water temperature. Provide an adequate supply of hot water, if needed.
- Use a suitable detergent or soap. Measure according to the amount of water. Too much detergent produces too many suds, and laundry is not rinsed clean. Too little detergent does not provide adequate cleaning power.
- Clean the inside and outside of the washer after each use.
- Clean the lint filter after each use. A ***lint filter*** is a device found in washers and dryers that collects lint as water or air passes through it.

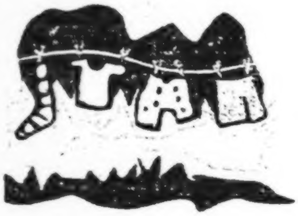
- Leave the lid open until the tub is dry.
- Wipe up product spills inside and outside the washer.
- Do not launder rags or cloths used with flammable liquids, such as gasoline, paint thinners, and cleaning solvents.

Safety Features for Commercial Washers. Most commercial washers have safety features to protect the operator. It is important that individuals learn about the safety features of washing machines in order to avoid injury. Safety features include the following:

- Lid switch - keeps the inner tub from spinning or agitating when the lid is open
- Safety brake - keeps the inner tub from spinning or agitating when the lid is open
- Push-to-stop timer - allows the operator to stop a cycle in progress
- Interlocking device - prevents the lid of the washer from being opened while the tub is in motion. It is important that individuals never place their hands or arms in a moving washer. A moving washer can pull a hand or arm in and result in severe injury or disfigurement.

Commercial Dryers

Drying is a process of evaporation that occurs naturally. Drying occurs faster when the temperature of the air is increased. For example, laundry on an outdoor clothesline will dry faster on a warm, dry day than on a cold, damp day. Drying also occurs faster when the rate of airflow across the wet surface is increased. For example, laundry on an outdoor clothesline dries faster on a breezy day than on a calm day.



A ***commercial dryer*** is a mechanical device that controls temperature and rate of airflow. Commercial dryers save time and energy, make articles soft and fluffy, help remove wrinkles, and prevent fading associated with sunlight. The main disadvantage of commercial dryers is that improper drying can increase shrinkage, cause damage to some fabrics, and cause wrinkles when the dryer is overloaded. An example of a commercial dryer is shown in Figure 17.2.

How A Commercial Dryer Operates. A commercial dryer operates by taking in air from outside of the dryer and heating it. Heat for drying is produced by a gas flame, steam, or an electric element. A thermostat controls the temperature of the heated air. A ***thermostat*** is a device used to regulate temperature to a certain level. The level may be fixed by the manufacturer of the dryer or set by the user.

Heated air goes into a revolving cylinder or drum that is turned by a motor. Like the front loader washing machine, the dryer drum has baffles to help move wet laundry around as it dries. As the drum tumbles, the dryer motor turns a fan that circulates heated air over and through wet laundry.

As the heated air circulates, it absorbs moisture. The moistened air is exhausted out of the dryer to the outdoors, and more hot dry air enters the dryer drum. This process continues throughout the drying cycle. When there is no longer a significant amount of moisture being evaporated from the laundry in the dryer drum, the temperature of the air rises to the level permitted by the thermostat of the dryer, and the temperature of the laundry approaches the temperature of the surrounding air.

The length of time required to dry laundry depends upon the following factors:

- Temperature at which the dryer is set and the air circulation in the dryer - The amount of time required for drying shortens as the drying temperature is increased.
- Size of the load - As the size of the load increases, so does the drying time.

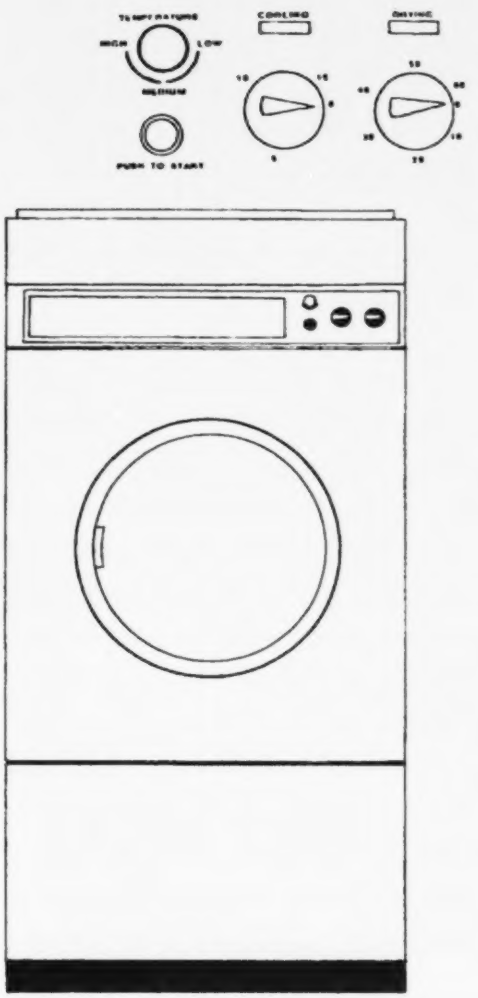


Figure 17.2

- Amount of moisture in the laundry - If most of the water has been extracted from the laundry during the washing process, the drying time will be shortened.
- Type of fabric - Lightweight fabrics dry more quickly than heavy fabrics.

Methods for Timing the Drying Process. Different methods are used to time the drying process. The length of time a dryer will operate can be determined by setting a timer, monitoring the load, or allowing electronic moisture sensors to monitor the load.

A ***timer*** is a control dial marked in minutes. When the timer is set for an excessive length of time, overdrying can occur. Overdrying causes some fabrics to shrink, wrinkle, and discolor. Stiffness of cotton fabrics also occurs. Since laundry varies in type of fabric, size, and amount of moisture retained from the wash, proper drying time is difficult to judge. To obtain satisfactory results when using a timer controlled dryer, the operator must have the ability to correctly judge the length of time it will take a load to dry.

Laundry facility employees can estimate when a load is dry by monitoring the length of time it takes for the heat source of the dryer to cycle on. The heat source in a dryer cycles on and off to maintain a predetermined air temperature inside the dryer drum. The heat source turns on when the temperature in the dryer drum drops. As laundry becomes dry, it takes longer for the temperature to drop and cause the heat to come back on. Therefore, the dryer operator knows the load is properly dried when the heat source remains off for a certain amount of time. This method of timing the drying of laundry is an indirect measurement of the dryness of the load. Therefore, it is more accurate than time controlled drying.

Some commercial dryers contain built-in sensors in the dryer drum or door to monitor the level of moisture in laundry. When wet laundry tumbling in the dryer comes in contact with the sensors, the moisture in the laundry completes an electric circuit. When there is not enough moisture in the laundry to complete the circuit, the dryer tumbles the laundry for a cool down period and then stops. Dryers equipped with moisture sensors are effective since they are less likely to overdry or underdry laundry.

Guidelines for Effective Use of a Commercial Dryer. When using a commercial dryer, effective results can be achieved by observing the following guidelines:

- Do not overload a dryer. Overloading causes the machine to work harder, results in longer drying time, and can cause wrinkling.
- Dry items of similar weight and construction together to avoid overdrying or underdrying.
- Clean the lint filter after each use of the dryer. A clean lint filter ensures proper air circulation throughout the dryer and prevents a possible fire hazard.

- Do not machine dry plastic, fiberglass, foam rubber items (such as foam rubber pillows), plastic aprons, shower curtains, and sheer curtains made of fiberglass. Drying these items may present a fire hazard. Glass fibers from fiberglass items can break and remain in the dryer where they can become mixed into other fabrics and cause skin irritations. These items may be placed in the dryer and dried using air only and no heat. However, tumbling may damage plastic and metallic fabrics.
- Never machine dry items containing flammable liquids, solids, or cleaning solvents, such as cleaning rags used with waxes, polishes, turpentine, or gasoline. In addition, never use dry cleaning solvents such as gasoline, kerosene, furniture polish, or other flammable liquids in a dryer. Fire and explosion can occur. Never use or store flammable liquids near a dryer.
- Clean exhaust ducts periodically to ensure optimum operation. Improper venting tends to increase drying time. Longer drying time results in the use of more energy and higher operating costs.
- Never allow children to play near or operate a dryer. Serious injury can occur if a child crawls inside of a dryer and the dryer is turned on.
- Never use the dryer door opening as a step stool.
- Read and follow manufacturers' instructions on laundry products.

To make efficient use of drying time, individuals should carefully sort laundry before placing it in the dryer. For example, items that require ironing can be placed in a load together so the load can be removed and ironed while slightly damp. Other loads can consist of items that do not require ironing or items that can be ironed without dampening. Starched laundry should also be sorted and dried separately from unstarched laundry.

Safety Features for Commercial Dryers. Like commercial washers, commercial dryers also have safety features to protect the operator. It is important that individuals learn about the safety features of dryers in order to avoid injury. Safety features include the following:

- Safety door switch - keeps the dryer from heating or tumbling when the door is open
- Separate start button - will not allow the dryer to turn on until the controls are set, the door is closed, and the start control is pushed or turned
- Friction door latch - allows the dryer door to be opened from the inside, prevents small children from being trapped inside
- Limiter control/motor protector - guards against overheating, heat source turns off if drum stops tumbling

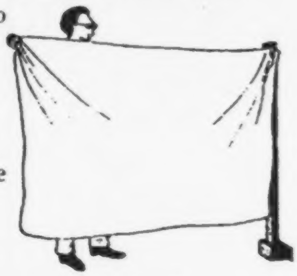
Additional Laundry Equipment

Housekeepers working in in-house laundries wash, dry, fold, stack, and store hundreds or thousands of linen items each day. For these tasks to be completed efficiently, an in-house laundry should be equipped with a variety of laundry equipment in addition to washers and dryers. Additional laundry equipment includes ironing machines, linen folder stands, folding tables, linen storage carts, laundry hampers, and soak sinks.

Mangles. Some laundries use large commercial ironing machines called mangles. A ***mangle*** uses heated rollers to press flat linens, such as sheets and table linens. The linens are fed into the mangle one at a time. Rollers move the linens into the machine and through the heated rollers. The linens quickly come out of the machine completely pressed and ready for folding. Linens should be straight when they enter the mangle. Linens that enter the mangle crooked or folded may come out wrinkled or pulled off grain. This causes undue wear on the fabric and may cause linens to wear out prematurely.

In addition to pressing, mangles are also used to sanitize linens. The extreme heat of the mangle rollers kills germs remaining on linens after the laundry process. Not all laundries use commercial ironing machines. Many institutions use only permanent-press linens that do not require ironing.

Linen Folder Stands. Some in-house laundries invest in linen folders. A ***linen folder*** allows one person to neatly fold linens. There are several types of linen folders. Some folders stand upright on the floor while others lie on tables.



One type of linen folder is the Extra Hand folder. The Extra Hand folder is approximately five feet tall and has a clip near the top into which the housekeeper places one end of a sheet. The folder holds the sheet as a second person would. The housekeeper is able to fold the sheet as the Extra Hand helps hold it. An Extra Hand folder can also be used to fold bedspreads, blankets, mattress pads, and shower curtains.

Linen Folding Machines. Institutions that process large quantities of linens often invest in a mechanized linen folding machine. Following is an example of how this type of machine operates:

- An operator feeds the flat sheet into the machine.
- Working together, blasts of air fold the sheet into length-wise folds, while mechanical blades are set for the cross-wise folds.

It is estimated that two attendants working together can fold 90-100 sheets per hour. This estimate is true also for one attendant using an Extra Hand folder. In contrast, some linen folding machines are designed to fold up to 1400 sheets per hour. It is evident that mechanized linen folding machines would not be cost-effective for small institutions, but could prove to be a wise investment for larger facilities.

Linen Folding Tables. As linens are folded, the housekeeper stacks them neatly on a table. This table is known as a ***folding table*** or ***stack table*** and is usually located near a linen storage shelving. This table is also used for folding smaller linens, such as towels, washcloths, napkins, and pillowcases. Once linens are folded, they are removed from the table and placed on a linen storage cart.

Linen Storage Carts. A ***linen storage cart***, or ***stainless steel mobile rack***, is used to transport linens from the laundry to the linen storage room. Once in the linen storage room, linens are removed from the cart and placed on shelves or on housekeeping carts.

Some linen storage carts have convertible shelves that can be repositioned to create ***soiled linen hampers***. After linens are removed from the linen storage cart, the housekeeper repositions the shelves and leaves the soiled linen hamper in the linen room. Housekeepers then place soiled linens in the hamper, and the hamper is delivered to the laundry. After soiled linens are removed from the soiled linen hamper, shelving is repositioned to receive clean linen. An example of a linen storage cart with convertible shelves is shown in Figure 17.3.

Laundry Hampers. A ***laundry hamper*** is a vinyl-coated canvas or molded plastic hamper used to transport linens within the laundry. Laundry hampers are used for the following purposes:

- Hold separated, soiled linen before it is placed in the washer
- Transport washed, wet linen to the dryer
- Hold clean, dry linens until they are folded

Separate laundry hampers should be used for each of these tasks. For example, clean, dry linen should not be placed in a hamper that was used to hold soiled linen. Germs could be transferred from the dirty hamper to the clean linen.

Soak Sinks. A ***soak sink*** is used for soaking and treating stained linens. These sinks are needed whenever strong chemical formulas for spot and stain removal are used. Often, soak sinks are double basin and made of plastic.

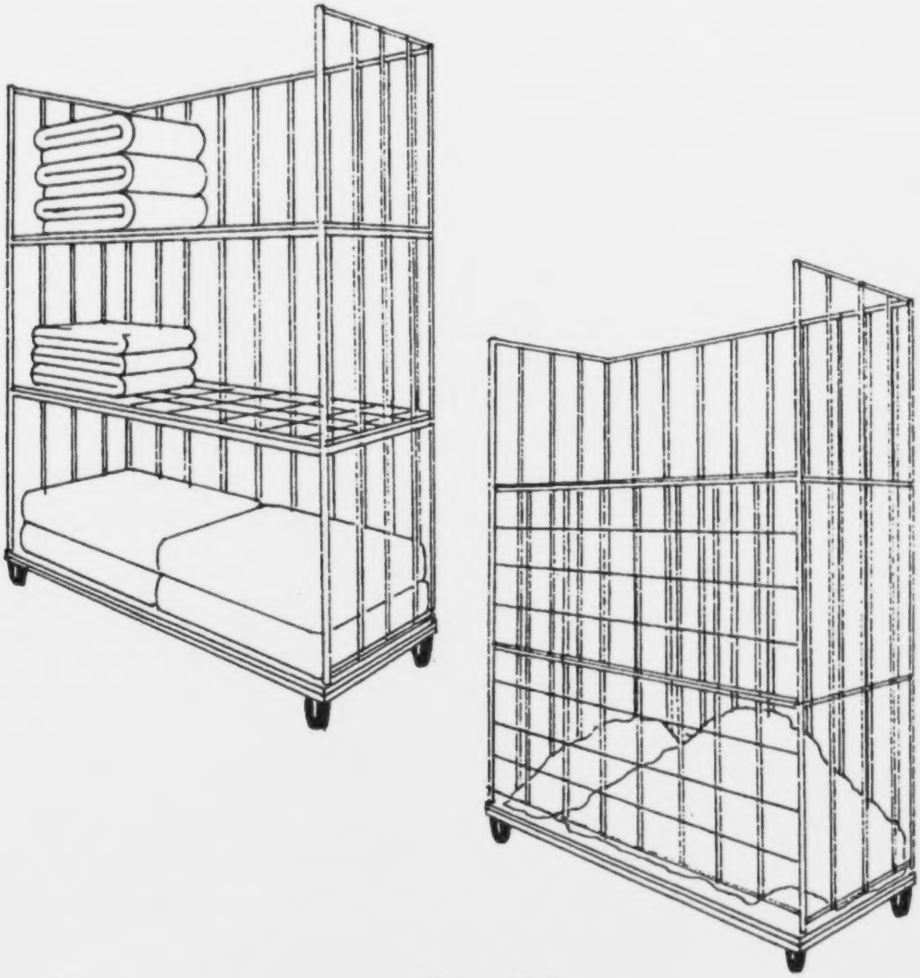


Figure 17.3

Maintaining Laundry Equipment

For laundry equipment to operate effectively, it must be properly maintained. Laundry attendants are often required to care for laundry equipment. For safety purposes, attendants should refer to the maintenance procedures recommended by the equipment manufacturer before attempting to clean or repair laundry equipment. The following guidelines are helpful in properly maintaining laundry equipment:

- Use a cloth to regularly wipe laundry equipment with a solution of water and soap, ammonia, or detergent. Rinse with clear water and wipe dry.
- Use a cream polish on most finishes to reduce fingerprinting.
- Clean stubborn or baked-on spots with a nonabrasive or lightly abrasive cleaner safe for stainless steel or enameled surfaces.
- Use a metal cleaner and dry cloth to remove stains caused by the heat of high-temperature machines.
- Remove hard water spots, scale, or lime deposits with specially designed commercial cleaners or a vinegar or acidic solution.
- Clean dispenser cups daily with warm water. Dispenser cups are built into the equipment and are designated for use with detergent, softener, and bleach.
- Wipe equipment motors and belts weekly to keep accumulations of lint, grease, or oil from interfering with equipment operation.
- Clean lint filters daily to increase the efficiency of equipment.

◆ Essential Questions: Laundry Equipment ◆

1. What are the main differences between institutional laundry equipment and home laundry equipment?
2. What washing conditions are controlled during a cycle?
3. What guidelines should be followed when using a commercial washer?
4. What purposes do the safety features on commercial washers serve?
5. By what process does a commercial dryer dry laundry?
6. What factors affect the length of time required to dry laundry?
7. What guidelines can be followed to achieve effective results when using a commercial dryer?
8. What safety features are commonly found on commercial dryers? Why are these important?
9. What types of additional equipment are used in laundries?
10. How can laundry equipment be properly maintained?

Chapter Highlights

- The goal of a laundry in a hospitality institution is to provide an adequate supply of clean linens to guests. In health care institutions, the goal of a laundry department is to prevent the spread of infection from soiled linens and prevent contamination of clean linens.

- Laundry room attendants must be thoroughly trained in the correct use of laundry products, such as detergents, bleach, fabric softeners, starches, tints and dyes, disinfectants, and ammonia.

- Environmentally friendly laundry practices include using ozone so that lesser amounts of detergents are used in the laundry process, using cooler temperatures to save energy, and eliminating the use of phosphates.

- Hospitals and health care institutions carefully monitor the handling of soiled linens to prevent the spread of diseases caused by cross contamination.

- Prior to laundering, linens should be sorted into a minimum number of categories of like items such as the following: white, brightly colored, colorfast, noncolorfast, bulky, and lint shedding.

- To obtain effective results when washing, laundry attendants must be able to identify different types of fabrics, such as cotton and polyester. Additionally, they should be able to identify different fabric finishes, such as permanent press, crease and wrinkle resistant, soil release, stain repellent, flame resistant, and shrink resistant.

- Methods used to treat stains include soaking in presoak product, pretreating with a stain remover, and removing using a stain removal guide and stain removal kit.

- The following types of energy are necessary to remove soil from fabric:
  - Mechanical (agitation or rotation of the tub)
  - Chemical (laundry products)
  - Thermal (hot, warm, or cold water)

- Commercial washers may include features such as the following: large load capacity, loading from the front, variety of cycles, extraction cycle, computerized control, and automatic dispensing of laundry products.

- By controlling temperature and rate of airflow, commercial dryers dry laundry in an efficient amount of time.

- Additional equipment used in laundries includes mangles, linen folder stands, linen folding tables, linen storage carts, soiled linen hampers, laundry hampers, and soak sinks.

Chapter 18

Proper Care and Handling of Linens

Chapter Focus

The following Essential Knowledge and Skills are discussed in this chapter:

4C Apply safety and sanitation procedures when performing assigned tasks.

7A Develop guidelines for selecting equipment, supplies, and procedures for assigned tasks.

7B Apply appropriate procedures while operating equipment and using tools and products in the performance of assigned tasks.

7C Describe the impact of technology on equipment, supplies, and procedures utilized in the industry.

7F Predict institutional maintenance cost variances based on material, surface, and furnishing considerations.

8C Apply safe and sanitary techniques when handling soiled linens and disposable materials.

9A Perform appropriate laundry tasks according to industry standards.

9E Describe procedures for appropriately folding, storing, mending, and recycling linens.

9F Describe procedures for handling and cleaning contaminated linens.

Chapter Vocabulary

basting stitch
central linen room
checkout pack
clean-for-dirty method
darning
guestroom amenities
heat-seal machine
light table
mending
mildew
minimum par
par
patching
patient pack
satellite linen rooms

A variety of linens are used in institutions. Linen items most frequently handled by housekeepers include bed linens, bath linens, table linens, and clothing such as uniforms. It is important for housekeepers and laundry personnel to care for and handle linens properly since the appearance of linens may affect the reputation of an institution. Individuals may become dissatisfied with an institution if linens are in short supply or if damaged or improperly laundered linens are used. In addition, an inadequate linen supply can affect other areas of an institution. For example, the food and beverage department may lose business when damaged or dirty linens are used on tables.

In addition to enhancing an institution's reputation, linens represent a major investment. Linens that are not properly cared for must be replaced, thus costing the institution money. In order to avoid spending an excessive amount of money on linens, an institution relies on the housekeeping staff to properly care for linens and control linen loss. Therefore, it is the responsibility of housekeeping and laundry personnel to follow proper procedures for folding, storing, handling, and repairing linens.

THE LINEN ROOM

Linens are usually stored in a linen room to ensure proper maintenance of their appearance. A ***central linen room*** is a designated area, usually in a foyer out of public sight, containing shelves on which clean linens are stored. To reduce the amount of linen handling, many institutions store linens in satellite linen rooms. These ***satellite linen rooms*** are often one of several service areas located in the rooms portion on each floor of the institution rather than in a central linen room. Linen rooms are restricted areas and only authorized for use by housekeeping employees or laundry personnel. The policy of keeping linen rooms restricted helps reduce the risk of germs being transferred to linens.

Functions of the Linen Room

In some institutions, the central linen room also serves as the headquarters of the housekeeping department. The housekeeping staff reports to the central linen room to receive daily instructions and obtain supplies to carry out duties. The linen room serves the following purposes:

- Storage center for clean linens, cleaning supplies, lost and found items, and amenities. ***Guestroom amenities*** are those items that are provided for the guests' comfort and convenience at no extra charge. Amenities include such items as body lotion, shampoo, shower caps, and bathrobes.
- Distribution center for clean linens, cleaning supplies, and amenities.
- Sewing center for mending and recycling linens.
- Information center for supervisors, guests, and employees.

Management Responsibilities

The function of a central linen room is to specify, control, and conserve an institution's investment in linens. Management of a linen room entails control of linen issue, evaluation of linen usage, determination of effective practices for processing and handling linens, and control of inventory. Objectives of a linen room supervisor include the following:

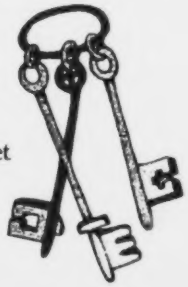
- Standardize linens of a type, where possible, to reduce inventory duplication.
- Establish standard specifications for each linen item to assure competitive basis for bids in purchasing of linens.
- Control issue of linens to provide a recognizable basis for their usage trends.

- Evaluate materials, sizes, and designs of linen items for best value in service.
- Monitor and evaluate linen inventory for wear and tear, losses, and dollar investment.
- Provide written procedures for training and best practice.

Linen Room Attendants

Linen room attendants must be alert and responsible since they are in charge of an expensive inventory. Inventory and record keeping are important as linens are distributed and collected. The linen room attendant may also be responsible for filling emergency linen needs from different parts of the institution. Accuracy in reporting all uses of linen is a major responsibility.

An attendant's desk or the housekeeping office is often located in the linen room. Keys for distribution to housekeepers may be stored in the linen room, and a bulletin board may be available for posting notices. A closet for lost and found objects, a closet for housekeeping staff uniforms, and a first aid kit for employees may also be located in the linen room.



Health and Safety Procedures

Linen rooms are usually equipped with a sprinkler system, and no smoking is permitted by order of local fire departments. Smoking in linen rooms poses a fire hazard and therefore is not allowed. In addition, the odor of smoke can penetrate linens and smoke film can damage linens.

Lint and dust from fabrics in a linen room can irritate the respiratory systems of employees. Therefore, linen rooms must be cleaned thoroughly each day. Vents, shelves, and floors should be vacuumed. Equipment should be dusted with a treated cloth and hard-surface floors should be mopped.

◆ **Essential Questions: The Linen Room** ◆

1. What purposes does a linen room serve?
2. What are the objectives of a linen room supervisor?
3. What are some examples of health and safety procedures followed in linen rooms?

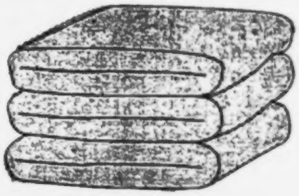
FOLDING AND STORING LINEN

Folding Linen

All linen items need folding for storage. Folding may be done by hand or by machine. If done by hand, it is possible to vary the position of the folds to avoid wear in the same places. Guidelines to observe when folding linen are as follows:

- Fold on a large area and press with the hands as each step in the folding process is performed. A linen folder stand may be used also. See Chapter 17 for additional information regarding laundry equipment.
- Fold flat pieces to a size convenient for storing.
- Fold sheets, tablecloths, and other large pieces of linen lengthwise first and then crosswise until the desired size is reached. This is a time-saving procedure that assists when making beds.
- Fold towels and pillowcases lengthwise in thirds and then crosswise. This time-saving procedure assists when hanging towels on towel bars.
- Regulate the size to which items are folded to fit the size of the shelf where the items

are stored. For example, if a bath towel is to be placed on a shelf twelve-inches wide, the folded towel should not be fifteen inches in width. It should be approximately eleven inches for ease in storing and using.



Storing Linen

Linens should be protected from insects, sunlight, and chemical fumes. Regular pest control should be carried out to control insects in the linen room. Silverfish are particularly destructive to fabrics.

An appropriate linen storage area is a well-ventilated, cool, dry, dark room with a lock on the door. Excessive dampness must be avoided to protect fabrics from mildew and mold. Therefore, the laundry room should not be used for linen storage.

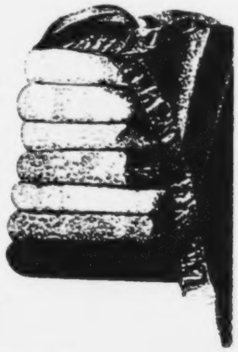
Slatted shelves are often used in linen storage rooms to allow for air circulation, thereby preventing mildew and pests from damaging linens. Shelves may be marked with the type of linen along with the storage date to ensure that supplies are rotated and not left in storage too long. The shelves in a linen room may contain movable signs that designate which linens are to be distributed. This promotes the rotation of linen and allows linens to sit and air for a period of time before being used.

Linens stored for a long time may result in yellowing. Removing the yellow tint is often accomplished through the use of fabric whiteners during laundering. A protective measure against yellowing is to keep stored linens wrapped. This not only aids against yellowing it also protects the linens from dust and insects.

Linens should be stored in an organized fashion. Some examples of proper organization include the following:

- Folds face the edge of the shelf to ease counting
- Stacks of equal number to speed up issuing
- Linens arranged according to type: small and medium sheets, pillowcases, bath mats, wash cloths

When designating shelf space, heavy linen items such as sheets, blankets, and bedspreads should be placed on lower shelves to eliminate unnecessary lifting. Pillowcases, towels, tablecloths, and other lightweight items can be placed on higher shelves. Seldom used items can be placed on higher shelves also.



Linen Storage Carts. Linen storage carts, or stainless steel mobile racks, are used for storage and delivery of linens. These carts can eliminate double handling as well as increase storage space. In a supply or stock room, movable shelves allow storage space to be expanded or modified as needed. Some housekeeping carts have movable shelves that allow the cart to be converted to a large bin for moving soiled linen to the laundry.

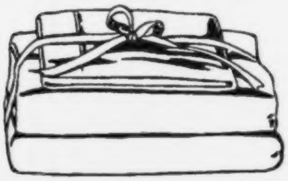
Linen Exchange Cart. A fresh linen exchange cart, stocked with a predetermined quantity of linens, is prepared daily for each service area. When a fresh cart is prepared, the quantity returned from the previous day is subtracted from the count placed on the cart to obtain net usage for the preceding day. At the end of each week, a report is sent to each department.

Linen exchange carts may have casters, be made of stainless steel, and have three shelves. These carts have a full-length, slip-on cover with a zippered face for easy access on one side. When carts are returned to the laundry, the zippered covers are replaced and cleaned as needed. All carts are cleaned with detergent and pressurized hot water quarterly or as needed.

In hospitals and health care facilities, exchange carts may serve as storage units in nursing stations. Clean linens are obtained from the cart. Zippered covers on the carts are closed each time linens are removed. When an exchange cart is returned to the laundry, any linens remaining on the cart are considered to be clean and are used to restock a fresh cart. If clean linens are dropped accidentally on the floor, they are considered soiled and are not used.

Linen Hampers. As soiled linen is removed from rooms, it is placed in a rolling, soiled linen hamper. These hampers have lids and a removable cloth bag inside. The cloth bag has a flap that can be pulled over the opening to seal the bag when it is full. Laundry personnel place soiled linen bags in a centrally located soiled linen truck for collection.

Linen Packs. In some facilities, linens are packaged together according to use. Distributing linens in packs reduces handling, saves space, keeps linen clean, and simplifies delivery. Linen packs may be stored on shelves in the linen room or placed on carts to be distributed to the floors. Packs may be color coded by bed size for easy recognition. Packs may be wrapped in plastic or paper.



Employee Uniforms. Many institutions require their employees to wear uniforms. In some institutions, employees are provided a total of three uniforms with the employee responsible for the cleaning and maintenance of the uniforms. Employees who are required to clean their own uniforms should be compensated for the cost of laundering. If institutions do not want to be responsible for the expense of employee-maintained uniforms, they may offer the institution's laundry services as an alternative.

When laundry services are provided by the institution, uniforms may be processed in the laundry daily and issued to employees as they report for work. A large, locking storage area should be provided for uniform storage. Inventory for uniforms could be quite large if a wide range of sizes is kept on hand.

The number of uniforms kept on hand is determined by the uniform distribution method. When using the "wear one, take one" checkout method, a minimum of four uniforms per employee are required. A method used to reduce the number of uniforms required in inventory is to have employees leave the uniforms at the institution. This would still require a minimum of three uniforms for each employee unless a night laundry crew is employed. Additionally, changing areas and lockers would be needed for storing the employees' clothes during the shift. Facilities for repairing uniforms also should be provided.

◆ Essential Questions: ◆ Folding and Storing Linen

1. What guidelines should be followed when folding linens?
2. What methods should be used when storing linens?
3. What methods are used for determining the number of employee uniforms kept on hand at institutions?

HANDLING LINEN

Par is the term used when referring to the normal amount of linens required to support the operations of an institution. One par is the quantity of each linen item needed to supply the institution completely at one time. Since one par is not enough to provide efficient operation of a facility, a par number is established to ensure adequate supply and smooth operation.

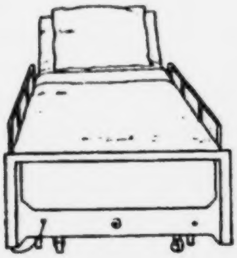
Establishing Par

All the linens in one guestroom or one patient room at one time are considered one par for that room. An adequate supply would be one par in the room, one par of clean linen to be used the next day in making up the room, and one par in storage. Another one-half par is added to use for replacement of lost, damaged, or stolen items. While three and one-half par per room may be adequate in a hospitality facility, a hospital may need four or five par per room since linen may be changed more than once a day. If an institution uses a commercial service for linen supply, another par is added to accommodate transport time.

Par includes the amount of linen that must be inventoried per bed plus bath linens for one person. Par ranges from three to five depending on the operation, occupancy, laundry situation, budget, and servicing guestrooms over a weekend when there may be no laundry delivery. ***Minimum par*** consists of one set of linens on the bed plus in the bath, another set in the laundry, and a third set in the linen room. A more realistic situation would be one par on the bed and in the bath, one in the floor linen room or on the housekeeping cart, one in the main linen room, one in the soiled linen cart en route to the laundry, and one in the laundry.

Health Care Facilities

In health care institutions, laundry is often the responsibility of Environmental Services or a separate laundry department. Generally, the hospital housekeeping staff is not required to change bed linen - this is the responsibility of the nursing staff and the laundry department. In some cases ward orderlies may help bag and store the soiled linen for collection by the laundry department.



Clean linen is handled, processed, and stored in a separate area from soiled linen. Clean linen carts are used only for clean linen and are never used to transport soiled linen. Strict adherence to this procedure helps to avoid cross contamination.

In some health care facilities, linens are distributed to the floor on carts in packs prepared in the laundry. Three types of packs are prepared:
- Standard
- Patient
- Checkout

The ***patient pack*** is used to prepare the patient for the day. The nursing station may administer this pack. It may include a clean hospital gown. The ***checkout pack*** is used to make the bed after cleaning the room and before admitting a new patient.

Handling Isolation Linen. In some health care facilities, laundry chutes are used for transporting soiled linen to the laundry department. Under no circumstances is isolation linen to be placed in a laundry chute. Isolation linen could contaminate the laundry chute thereby increasing the risk of infection.

The proper handling of isolation linen is to seal it in a water-soluble bag which is then placed inside an isolation linen bag. To distinguish the isolation linen bag from other laundry bags used within the department, a specific color may be designated, such as red. Authorized personnel take the properly bagged isolation linen directly to the laundry.

When handling bagged isolation linens, the exterior bag is removed at the washer. The interior bag is not opened. It is placed in the washer with its contents. Since the inner bag is water soluble, it disintegrates during the washing process. The use of this type of bag protects those persons handling isolation linens. In order to sanitize linens, antibacterial agents are used in the washing process. In addition, the final drying cycle is elevated to 225°F.

Handling Soiled Linen. When soiled linens are unloaded from carts or hampers in the laundry, those doing the sorting wear gloves. This is a safety measure to protect against infection should they have open cuts or sores on their hands. Those handling soiled linens must wash their hands after touching soiled linen.

Handling Damaged Linen. Damaged linens should be placed in containers provided in the linen room. Damaged linen should not be placed in the laundry chute. Aged and worn linen are used mostly to supply cleaning cloths. A written record or log should be kept of all discarded linen.

Inventory Procedures. Many health care institutions take an inventory of linens every six months. It is necessary to establish set periods of time when linen issue will be interrupted and material flow stopped while a team counts every linen item in inventory without interrupting health care. One method of taking inventory is as follows:

- At a set time, each department counts clean linen in exchange carts.
- Linen room personnel count all clean linen stocked in the linen room.
- Laundry personnel process all soiled linens and count all clean linens in the laundry area.
- Inventory is totaled and the standard supply of linens in use in patient rooms is added to obtain a complete count.

Since it would be difficult to count every piece of linen in an institution without halting operations, organizing an inventory every three or six months provides a fairly accurate count of linen in use and in storage. This provides information for future planning and budgeting.

Hospitality Facilities

In hospitality facilities, distribution of linens is an ongoing process. Nothing can upset the work schedules of housekeepers or irritate guests more than a shortage of linens. The professional linen room supervisor should keep the linen supply up to par and keep an accurate linen inventory. Following are examples of what may occur whenever there is a shortage of linens:

- Some housekeepers cannot make beds and, thereby, rooms cannot be rented.
- Employees spend precious work time in linen storage areas looking for extra linens.
- Guests must be kept waiting when requests for extra linens are made.

Inventory Procedures. Keeping careful count of the linens sent and received from the laundry each day is a responsibility of the linen room staff. A more thorough inventory should be done at regular intervals, usually every three to six months. Following these inventories, additional linens can be ordered. If a commercial laundry service is used, all linens sent out and returned should be counted accurately under careful supervision. Reasons for conducting inventory of the linen room are as follows:

- Helps keep losses to a minimum
- Identifies items needing replacement
- Controls the cost of replacing linens
- Identifies the amount of linens stolen

The linen pack is one way to keep a correct count of linen. When using linen packs, the room attendants do not have to count and carry, and accidental dropping of linen pieces is lessened. Hospitals use this method to ensure cleanliness of linens.

In all institutions, strict records must be kept on linens since they represent a large part of an institution's budget. The linen control system most often used is the ***clean-for-dirty method*** of exchange. In this system, each housekeeper receives one set of clean linens for each set of dirty linens returned.

Most institutions conduct linen inventory counts regularly. Such counts should be made at the end of the day when linen is not being transported. Included in the inventory are the following:

- Linens in the guestrooms
- Linens on the shelves of the linen room — including the linens to be mended
- Linens in the laundry
- Linens in reserve

If the institution performs its own laundry services, minimum par is four sets of bath linens and bed linens needed for each room. However, if the institution uses an off-premises laundry, at least five complete sets of linens are needed for each room. The extra set allows for one set of linens to be in transit to the commercial laundry. Additionally, extra linens may be needed for weekends when there is no laundry delivery.

Linen that requires mending should be placed in another area of the linen room. A locked closet is the preferred storage place for these linens. Locked storage reduces the temptation to use these linens as cleaning cloths. Dyeing cleaning cloths a different color from linens also reduces the likelihood of linens being used as cleaning cloths.

Table linens for the food and beverage department may be handled by housekeepers and stored in the linen room also. Table linens may include a large inventory with varying sizes and colors of tablecloths and napkins.

Marking linen with the name of the institution and the date it was put into use is a practice of some institutions. This practice is not as prevalent as it once was. In the hospitality industry, management has found that plain sheets and towels are not stolen as often as towels with the hotel name on them. Unless several brands of linens are being tested for wear, there appears to be little need to mark the date of first use. Damaged linen will be replaced when needed no matter what the first use date is. Very few institutions can afford to replace all linens on a regular basis.

Handling Soiled Linen. Large carts can be loaded with linens in the laundry or linen room and taken to floor supply rooms. The carts can be left loaded in the supply room and housekeepers can stock their carts from it. This eliminates a second handling of linens by putting them onto shelves in a satellite linen room.

Linen control should be in effect in satellite linen rooms also. Par count for each room should be set and posted. These rooms should be stocked daily according to the par and kept locked at all times.

Laundry chutes that connect floor supply rooms directly to the laundry are an ideal situation. Soiled linens can be removed from floors quickly so they cannot become mixed with clean linens or linens needing repair. In addition, laundry staff do not have to leave the laundry to collect linens. The public never sees the mounds of dirty linens and is never exposed to the risk of infection. Laundry chutes should be kept clean and should be checked often for jammed items or for foreign substances. Chutes should have doors with locks so that only housekeeping and laundry staff have access.

The floor or receptacle on which soiled linen collects should be cleaned and sanitized frequently. In addition, the area where soiled linen accumulates should be locked at the end of the work shift. Security should be instructed to check linen rooms nightly.

◆ **Essential Questions: Handling Linen** ◆

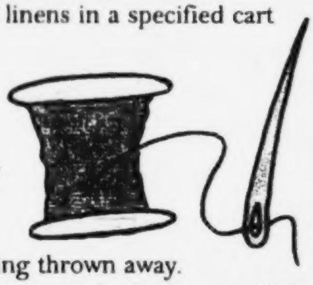
1. What are the correct methods for handling isolation linen?
2. How do methods of handling linens in health care facilities differ from methods of handling linens in hospitality facilities?
3. Why is it important to maintain an adequate par?

LINEN REPAIR

With proper care, linens last about three years before they require mending or recycling. The life span of linens depends upon the care and treatment received when they are in use, in the laundry, or in storage. Improper treatment causes linen to wear out more quickly. Improper handling of linens can seriously affect the budget of an institution. For this reason, the linen room is one of the most important areas in an institution.

Damage to linens can be avoided when the following guidelines are observed:

- Use only cleaning cloths for cleaning. Do not use linens for quick clean-up jobs.
- Check laundry chutes and laundry carts and hampers for protruding nails, splinters, or objects that can damage linens.
- Place damaged linens in a specified cart or hamper.
- Check wastebaskets and trash containers periodically to prevent linens from accidentally being thrown away.



- Do not let damp linens lie for long periods of time. Mildew can form on damp linens. Do not allow damp linens to lie on concrete or iron. Concrete stains are almost impossible to remove, and iron rust may cause holes.
- Do not use linens to wipe up chemicals. Chemicals can damage linens.

Repairing linens is well worth the investment. One or more sewers may be employed depending upon the size of the facility and the need for repairing linens. In a small facility, the linen room supervisor or linen room attendant may be the person responsible for repairs. Responsibilities for linen repair might include the following:

- Altering uniforms
- Patching table linens and bed linens
- Repairing rips and cigarette burns in bedspreads
- Recycling fabric
- Constructing items for use in the institution

In large institutions, the sewing room may be a separate department where draperies, bedspreads, and bed skirts are made. Upholstery of furniture may also be performed in a large sewing room.

The most effective way to prevent the deterioration of a linen item is to take action on any problem, no matter how small, as soon as possible. Properly repairing or treating problems minimizes the chance of permanent, irreparable damage.

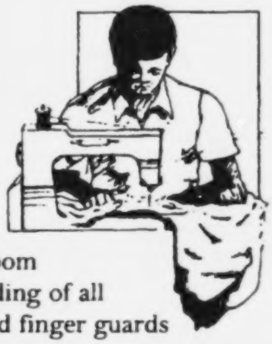
Supervisors are responsible for ensuring that employees are trained in the identification of linens in need of repair. Procedures should be established for identifying and storing damaged linens. Once an item reaches the sewing area, obvious damage is repaired immediately. After repair, the entire item should be examined and any additional damage should be repaired.

Many institutions use light tables to examine linens for damage. A ***light table*** has a plastic surface with light bulbs under the plastic. Linens can be spread over the table prior to folding and stains or tears can be identified quickly. While this procedure takes time, it actually saves the housekeeper time later. For example: if damage is discovered while making a bed, time is lost in getting a replacement sheet. There is usually not enough space on the housekeeping cart to keep soiled sheets separate from those needing repair, so time-saving procedures should be developed for identifying items needing repair.

Equipment and Supplies

A commercial straight sewing machine that can sew varying thicknesses of fabrics is the minimum requirement necessary in the linen room. In large facilities that do more actual construction and more extensive repairs, a zigzag sewing machine is useful for mending, darning, and button sewing. Other useful equipment includes a blindstitch machine for hemming, a serger or overcast machine for finishing edges, and special tools used to add or replace fasteners on uniforms. Heat-patching machines for repairing holes in table and bed linens may also be needed.

Linen repairs are made using 100 percent polyester thread. This type of thread is strong. Also, it does not shrink, is colorfast, and provides correct elasticity for seams and repairs.



Additional sewing supplies needed for linen repair include hand sewing needles, scissors, tape measure, straight pins, thimble, and electric iron and ironing board. Safety procedures in the sewing room include proper grounding of all equipment and eye and finger guards on sewing machines.

Mending Linens

Mending is important for maintaining linens. ***Mending*** is the act of repairing or restoring something to good condition. Mending should be done before items are washed. A ripped or torn place may ravel and tear even more during the washing process. If linens have been mended properly but still appear to be in bad condition, they should be recycled, redesigned, sold, or given away.

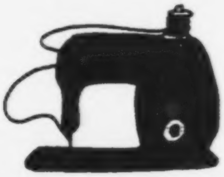
Darning. ***Darning*** is a method used to repair a hole or tear by anchoring yarns in the fabric following the grain of the fabric. Broken yarns are covered when darning tears. Missing yarns are replaced when darning holes. The goal of darning a tear or hole is to duplicate the knit or weave of the fabric. Some fabrics are harder to darn than others.

Steps for darning tears and holes in fabric are as follows:

- Choose a fine needle.
- Use a single strand of thread that matches the fabric. Use thread that can be raveled from a seam or cut edge if possible.
- Work from the right side of the fabric.
- Do not tie a knot at the end of the thread.

Leave a one-inch thread end or tail. Use a running stitch – long stitches – by weaving the needle and thread in and out of the fabric.
- Baste a piece of matching fabric to the wrong side of the fabric when darning large holes or tears. A ***basting stitch*** is a long, running stitch that can be removed easily after the darning is complete. Basting stitches hold the matching fabric stable during the darning process.
- Follow the grain with the stitches.
- Keep stitches only tight enough to keep the fabric smooth.

Using a sewing machine with a zigzag stitch is another method for darning. The following guidelines should be followed when using a sewing machine to darn tears:
- Reinforce the fabric by hand by basting a piece of the same color of lightweight fabric under the tear.
- Stitch across the torn edges. Sewing machine directions should list the correct setting for the stitch to be used.
- Stitch across the tear with a zigzag stitch.



These basic guidelines are helpful for darning fabrics. However, different fabrics, holes, and tears may require different or special stitches and techniques. Laundry attendants should consult a resource for specific instructions.

Patching. Patches should be used when holes are too large to be darned neatly and firmly. ***Patching*** is the process of affixing a piece of material to another piece of material to cover or reinforce a weakened or worn area. Matching stripes or prints on linens to the stripes or prints on the patch will help make the mending job look more professional. Patching may be done by hand or sewing machine. However, machine stitching is more durable than stitching by hand.

Patching can be done also with heat-seal machines. A ***heat-seal machine*** is a table-top machine that uses air pressure and heat to secure patches. The time and temperature for application are automatically controlled. The patching material is cut from a matching fabric and is slightly larger than the hole or tear to be mended. A piece of bonding material the same size or slightly smaller than the patch is cut. The bonding material is placed on top of the area to be mended with the fabric patch on top of that. Heat is then applied with the heat-seal machine. This creates a patch area that is almost invisible and that withstands repeated washings.

While a regular iron can be used to apply small patches, the heat-seal machine allows laundry or linen room attendants to mend large areas in any fabric. Mats and rugs can be mended using this method also. With heat-seal machines, precut patches to match the linens are applied quickly and efficiently.

Causes of Linen Damage

Carelessness is the main cause of linen damage. Guests, patients, housekeepers, kitchen and banquet employees, laundry attendants, and linen room attendants contribute to linen damage. They may accidentally drop linens on floors or in storage rooms and fail to pick them up, spill things on linens, use linens to clean spills, or drag linens on floors. The linens become soiled and stained.

Damp linens that are left damp for a long period of time become mildewed if not washed immediately. ***Mildew*** is a fungus that grows on linens or surfaces that remain damp. Mildew leaves discolored spots that are difficult or impossible to remove, although bleaching may remove some mildew spots. To prevent mildew from growing on damp linens that will not be washed immediately, do one of the following:

- Separate damp linens from other linens, spread them out and air dry them.
- Place them in a commercial dryer.

Mixing dirty cleaning cloths with other soiled linens may result in the soiled linens becoming even dirtier or permanently stained. Separate containers are usually provided for different types of soiled linen. Employees should follow instructions regarding the disposal of soiled linens in order to avoid unnecessary linen damages and losses.

Other causes of linen damage include the following:

- Tears resulting from daily wear and usage
- Holes burned in linens by smoking guests, patients, or visitors
- Rips caused by protruding nails, splinters, and sharp edges on supply carts and in laundry chutes

Recycling Damaged Linens

Damaged linen is seldom discarded. Linens that cannot be mended or are poorly mended can be recycled into items such as the following:

- White linens may be dyed and used for dust cloths.
- Towels may be remade into wash cloths.
- Tablecloths may be made into napkins.
- Several napkins may be sewn together to make potholders.
- Patient gowns can be made from torn sheets or surgical drapes.

Cleaning cloths may be dyed a specific color to distinguish them from linens used in guest or patient rooms or in foodservice. Care should be taken when washing dyed cloths until certain the dye is set or will not run. Dyed cleaning cloths should not be stored near regular institution linens since the dye from the cleaning cloths may fade onto the linens. Most institutions have special receptacles for each type of linen in order to avoid linen loss caused by running dye.

Dyeing cleaning cloths a specific color also keeps regular institution linen from accidentally being used for cleaning. Employees should select the specially dyed cloths for cleaning and leave the good linens for use by guests or patients. This helps maximize the durability of good linens.

◆ Essential Questions: Linen Repair ◆

1. Why is it important to repair damaged linens?
2. What equipment is used to repair linens?
3. How do methods for darning and patching differ?
4. How can damage to linens be avoided?
5. In what ways can damaged linens be recycled?

Chapter Highlights

☆ The linen room serves a number of purposes such as the following:
  - Storage for linens
  - Distribution center for clean linens
  - Distribution center for cleaning supplies
  - Sewing center
  - Information center
  - Distribution center for keys
  - Storage for lost and found items
  - Storage for staff uniforms

☆ All linen items need folding for storage. Folding may be done by hand or by machine.

☆ Stored linens should be protected from insects, sunlight, and chemical fumes. Linens should be stored in an organized fashion. Linens can be stored in well-ventilated linen rooms on slatted shelves and on carts with zippered covers.

☆ Par refers to the normal amount of linens required to ensure efficient operation of an institution. One par is the quantity of each linen item needed to supply the institition completely at one time. Minimum par typically ranges from three to five.

☆ In health care institutions, clean linen is handled, processed, and stored in a separate area from soiled linen in order to reduce the risk of infection.

☆ An inventory of linens should be taken regularly, such as every six months, to control linen expenses.

☆ The purpose of linen repair is to reduce replacement costs by maintaining the pleasing appearance of linen for as long as possible.

☆ Methods of repairing linens include darning, patching, and recycling.

REFERENCES

Borsenik, F. D. and Stutts, A. T. (1997). *The Management of Maintenance and Engineering Systems in the Hospitality Industry, 4th ed.* New York, NY: John Wiley & Sons, Inc.

Cleaning Management® Institute, Inc. (1989). *Custodial Technician Handbook I: Basic Cleaning Procedures in Custodial/Housekeeping Operations.* Irvine, CA: Author.

Couch, S., Felstehausen, G., and Hallman, P. (1997). *Skills for Life.* St. Paul, MN: West Publishing Company.

Fasulo, M. and Walker, P. (1995). *VGM Professional Careers Series: Careers in the Environment.* Lincolnwood, IL: NTC Publishing Group.

Feldman, E. B. (1992). *Managing Housekeeping and Custodial Operations.* Englewood Cliffs, NJ: Prentice Hall.

Fellows, J. (1984). *The M&E Hotel, Catering and Tourism: Housekeeping Supervision.* Bristol, England: Macdonald and Evans, Ltd.

Levitt, J. (1997). *The Handbook of Maintenance Management.* New York, NY: Industrial Press Inc.

Martin, R. J. (1998). *Professional Management of Housekeeping Operations, 3rd ed.* New York, NY: John Wiley & Sons, Inc.

Web Sites

Altura Solutions Janitorial Resource Center
http://www.alturasolutions.com

Business Netiquette International
http://www.bspage.com/1netiq/Netiq.html

Centers for Disease Control and Prevention
http://www.cdc.gov

Cleaning Institute
http://www.build-a-business.com

Educational Institute, American Hotel & Lodging Association
http://www.ei-ahma.org/

Environmental Health and Safety, Texas Tech University
http://www.ehs.ttu.edu/

Flags Unlimited, Inc.
http://www.flagsunlimitedinc.com

Global Cleaning Services Resource Center
http://www.housekeeping.com

Healthy Clean Buildings
http://www.cleaningpro.com

Hotel Online
http://www.hotel-online.com/

International Executive Housekeepers Association, Inc.
http://www.ieha.org

Learn2 Clean Your Computer, The Learn2 Community
http://www.learn2.com

National Safety Council
http://www.nsc.org

News and Events, Pyxis Corporation. *Dancing with Robots* (February 15, 2000)
http://www.pyxis.com

Occupational Outlook Handbook, Bureau of Labor Statistics
http://stats.bls.gov

Occupational Safety & Health Administration, U.S. Department of Labor
http://www.osha.gov

Small Business Administration
http://www.sbaonline.sba.gov

Soap and Detergent Association
http://www.sdahq.org/

Index

A

abrasive cleaner 157
absorbent compound 175
absorbent compound method 175
accountability 85
accuracy 45
acid cleaner 156
acquired immunodeficienty syndrome 111
active listening 64
aerosol 158
air freshener 157
Americans with Disabilities Act (ADA) 9
anionic surfactant 155
aseptic 249
attitude 38
autoclave 248
automated equipment 78

B

backpack vacuums 151
bacteria 248
bad news letter 68
baffles 289
basting stitch 309
built-in cart vacuums 152
beater bar 150
benefits 95
bid 29
biodegradable 109
biological hazards 258
bleach 275
block form 68
body fluids 257
body language 65
bond 32
bonnet method 178
bonus 94
break 287
breaks 275
broad range of kill 139
broom 145
brushes 146
budget 82
buffer 152
buffing 170
builders 274
built-in vacuum Systems 151
burnishing 170

C

card entry system 269
cardiopulmonary resuscitation (CPR) 133
carpet bonnet 178
carpet cleaners 159
carpet sweeper 145
case goods 190
cationic surfactants 155
central linen room 300
chain of command 84
character traits 51
checkout pack 304
cheerfulness 51
chemical energy 285
chlorine bleach 275
choking 135
clean-for-dirty method 306
cleaning teams 22
client 49
closed shop 92
colorfast 279
commercial dryer 291
commercial vacuums 150
communicable diseases 111
communication 43
company protocol 85
compensation 93
computers 73
confidentiality 45
conflict 77
constructive criticism 40
continuing education units (CEUs) 7
contract cleaning services 21
controlling 207
convertible shelving cart 150
cooperation 46
coordinating 207
corrosives 126
cream 158
crease and wrinkle-resistant finish 280
criticism 40
cumulative trauma disorder (CTDs) 110
custodial carts 149
cycle 289

D

damp mopping 168
darning 308
degreaser 157
dependability 45
desktop publishing 73
detergent 155
disaster 119
disinfectants 138
disinfection 17
dispersing 287
do not disturb signs 262
double bagged 224
dovetailing 237
down time 31
dry extraction 175
dry foam 177
dry vacuum 151
drying 291
dual-motor vacuum 150
durable press 280
dust cloth 147
dust mop 147
dust mopping 166
dustpan 146

E

e-mail 73
educational institutions 20
electric brooms 152
electronic commerce 33
empathy 59
employee contributions 94
emulsifiers 287
entrepreneur 26
entry level 8
environmental services 2
enzyme 274
ergonomics 7, 109
ethical behavior 85
ethics 44
eutrophication 274
evaluation 208
executive housekeepers 6
extraction 177, 290
extraction machine 152, 290

F

fabric conditioner 276
fabric softener 276
fatigue 241
feather duster 147
Federal Emergency Management Agency (FEMA) 119
feedback 64
FICA 94
finish 279
finish stripper 159
finishes 159
first aid 132
fiscal year 82
flag protocol 231
flame-resistant finish 280
flammable chemicals 115
flextime 93
floor broom 146
floor brush 146
floor finishes 170
floor sealers 159
fluorescent whitening agents (FWAs) 276
foam cleaning 177
folding table 294
fountain brush 147
franchise 34
franchisee 34

BEST COPY AVAILABLE

franchisor 34
friendliness 51
front loader 289
fuel 115
fungi 248
furnishings 194
furniture polishes and cleaners 158

G

germicides 157, 249
goals 82
grievance 91
gross pay 94
grounds maintenance 3
grout 190
guestroom amenities 300

H

H.E.P.A. (High Efficiency Particulate Air) filter 150
half-mast 231
half-staff 231
hand vacuums 152
Hazard Communication Standard (HCS) 104
hazardous materials 23
health 42
health care institutions 17
heat-seal machine 309
Heimlich maneuver 136
honesty 46
hospitality services industry 18
hot water extraction 177
housekeeping cart 149
housekeeping departments 2
human immunodeficienty virus (HIV) 111
HVAC 5
hydrophilic 155
hydrophobic 155

I

I-messages 78
immobilize 135
implementation 207
incentive 94
incident files 87
initiative 40
Institutional maintenance 2
internship 6
inventory report 267

J

job description 9
job performance standards 84
job sharing 93

L

labor union 91
ladder 148
laundry hamper 295
liability insurance 32
light table 308
limited resource 235
linen 272
linen folder 294
linen storage cart 294
lint filter 290
liquid 158
load capacity 289
lobby dustpans 146
lock cylinder change program 268
long-handled dustpans 146
lost and found log 267

M

management 8
management process 206
mangle 294
material requisition 267
material safety data sheet (MSDS) 104
maximum reach zone 240
mechanical energy 285
memorandums 70
mending 308
metal polish 157
microorganisms 248
mildew 309
minimum par 304
minimum wage 94
mission statement 82
modified block form 68
mop bucket 148
mosaic floor 190
motion study 237

N

natural fibers 191
net pay 95
netiquette 73
neutral information letter 68
nonionic surfactants 156
nonverbal communication 62
normal reach zone 240

O

obnoxious behavior 58
Occupational Safety and Health Administration (OSH 23
one-way communication 65
open shop 92
open-minded 38
organic matter 252
organic solvents 126
organization 243
organizational charts 84
overtime 93
oxygen-based bleach 275
ozone 274

P

package price 29
par 304
passive listening 64
paste 158
patching 309
pathogens 138
patient pack 304
payroll deductions 94
performance appraisal 87
permanent-press finish 280
personal appearance 41
personal hygiene 139
personality 51
pest 253
pH level 273
pilling 279
planning 206
policies 82
policing 209
polish 189
polisher 152
pot mopping 168
prejudice 77
preliminary room check 266
premeasured products 154
premiums 96
pressure fill method 289
pressure points 132
preventive maintenance 3
prioritizing 239
private sector establishments 19
probation period 86
procedures 82
procedures manual 83
procrastinating 238
professionalism 44
project cleaning 163
promotion 32
prompt 45
property insurance 32
protective clothing 123
public sector establishments 19
public areas 208
putty knife 148

Q

quarry tiles 190

R

recovery tank 177
repetitive strain injuries (RSIs) 110
report 70
request letter 68
residual odor 252
resignation 89
riding vacuums 151
rodent 253

room report 267
rotary brush method 178
rotary floor machine 152
royalty 34

S

safety 102
safety standard regulations 103
sanitation 17
satellite linen rooms 300
scoop machine 151
scrub brush 147
scrubber 152
sealers 170
security 102
self-control 39
sense of humor 51
sequestering 287
service cart 149
service-producing industry 4
shift 92
shock 134
shrink-resistant finish 280
single-motor vacuum 150
soak sink 295
soap 155
soap scum 155
soil-release finish 280
soiled linen hampers 294
soiling 281
solvent 157
sorting 278
sours 275
space vacuums 151
sponge 147
sponge mop 148
spontaneous ignition 115
spray 158
spray bottle 148
spray buffing 170
squeegee 148
stack table 294
stain 156
stain removal kit 281
stain remover 156
stainless steel mobile rack 294
stains 281
Standard Operating Procedures (SOPs) 83
standards 206
starch 276
steam cleaning 177
steam-cleaning machines 153
sterilization 17
stock attendant 124
straight salary 94
stripper 152
stripping 170
submissive 51
suds control agent 274
supervisory level 8
supply 267
supply cart 149
surfactant 155, 274, 286
sweeping 166
synthetic fibers 191

T

tain-repellent finish 280
tarnish 201
task analysis 236
templates 73
thermal energy 285
thermostat 291
third-degree burn 134
time clock 90
time fill 289
time log 238
time management 235
time robbers 238
time study 237
timer 292
toilet brush 146
tourniquet 133
toxins 248
track mopping 168
trait 51
transient odor 252
trash container 149
two-way communication 65

U

U. S. Small Business Administration (SBA) 28
universal precautions 258
upholstered furniture 190
utility cart 149

V

vacuum cleaner 150
vacuum cleaner bags 150
vacuuming 175
vehicle insurance 32
verbal communication 62
viruses 248

W

wage 93
walk-off mats 164
wall-washing machine 153
wand 151
wash-and-wear 280
washer/extractor machine 290
washing formulas 282
water extraction 177
wet mop 147
wet mopping 168
wet shampooing 178
wet vacuum 151
wet/dry vacuums 151
wetting 286
whisk broom 146
wood veneer 190
word processing 73
work simplification 239
Worker's Compensation Insurance 32
wringer/squeezer attachment 148

Y

you-messages 78

BEST COPY AVAILABLE

514

THE CURRICULUM CENTER
FOR FAMILY AND CONSUMER SCIENCES

U.S. Department of Education
Office of Educational Research and Improvement (OERI)
National Library of Education (NLE)
Educational Resources Information Center (ERIC)

NOTICE

Reproduction Basis

☒ This document is covered by a signed "Reproduction Release (Blanket)" form (on file within the ERIC system), encompassing all or classes of documents from its source organization and, therefore, does not require a "Specific Document" Release form.

☐ This document is Federally-funded, or carries its own permission to reproduce, or is otherwise in the public domain and, therefore, may be reproduced by ERIC without a signed Reproduction Release form (either "Specific Document" or "Blanket").